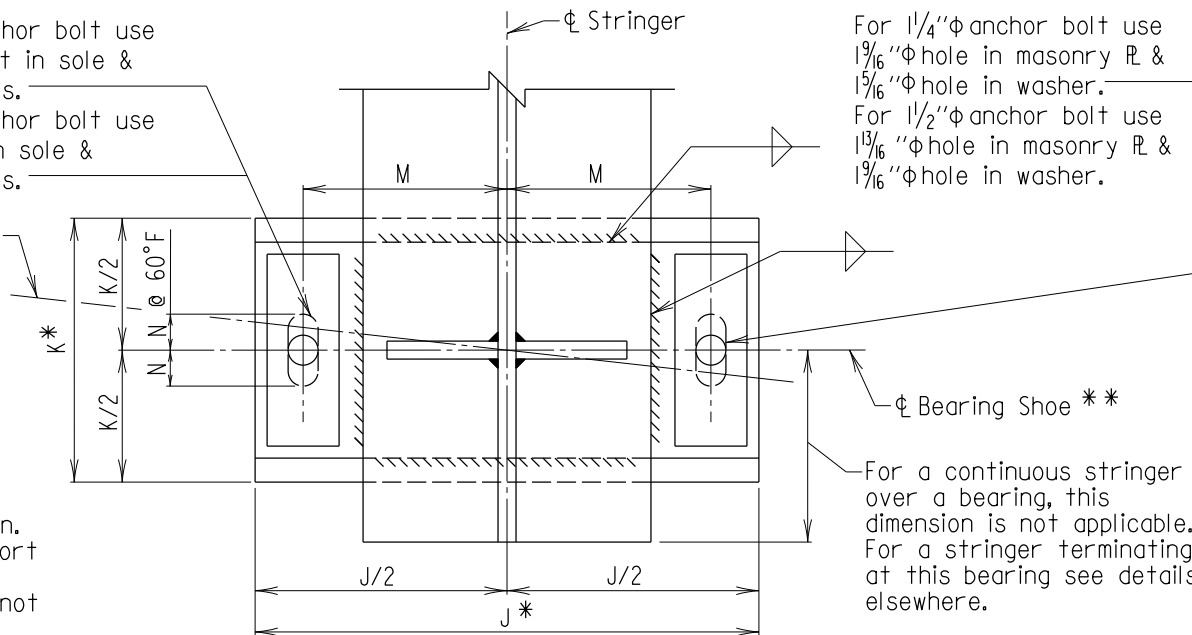


For $1\frac{1}{4}$ " ϕ anchor bolt use
 $1\frac{9}{16}$ " x 2N slot in sole &
 bronze plates.
 For $1\frac{1}{2}$ " ϕ anchor bolt use
 $1\frac{13}{16}$ " x 2N in sole &
 bronze plates.

ϕ of Brg. **

Note:
 1. Nut not shown.
 2. Pad and support
 not shown.
 3. Sliding plate not
 shown.

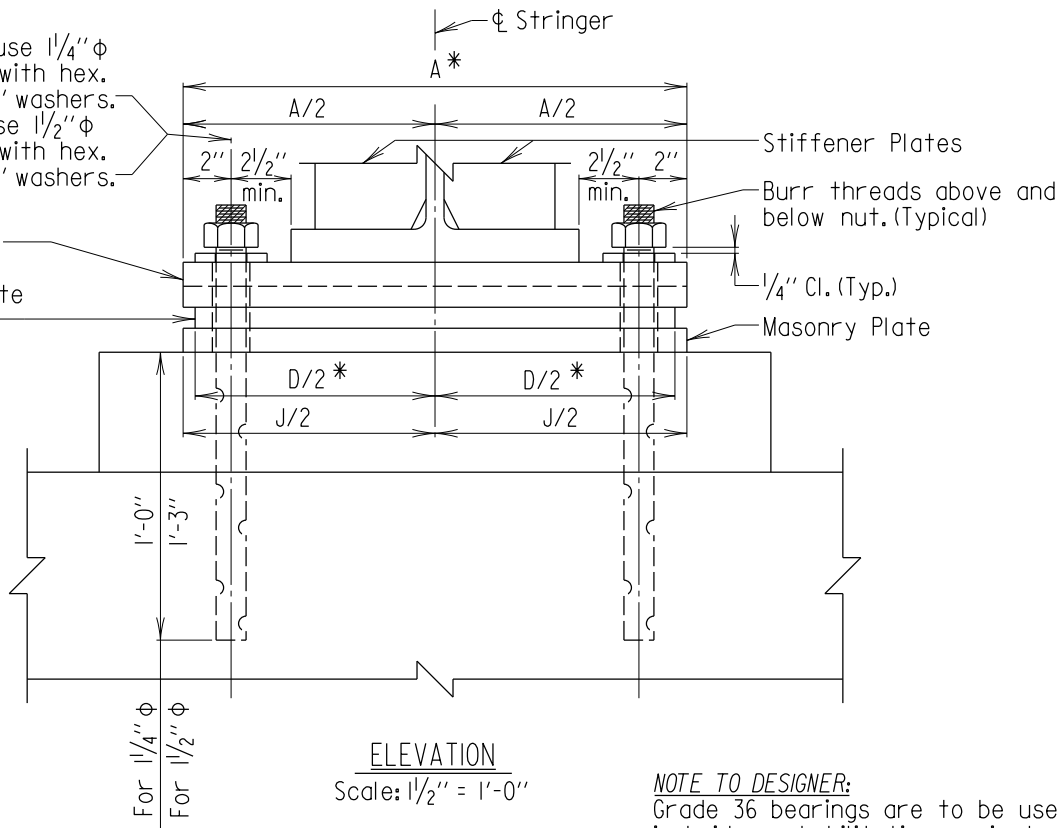


PLAN
 Scale: $1\frac{1}{2}$ " = 1'-0"

For spans under 100' use $1\frac{1}{4}$ " ϕ
 swedge anchor bolts with hex.
 nuts and 3" x $\frac{3}{8}$ " x 8" washers.
 For spans over 100' use $1\frac{1}{2}$ " ϕ
 swedge anchor bolts with hex.
 nuts and 3" x $\frac{3}{8}$ " x 8" washers.

Sole Plate

Sliding Plate
 (Bronze)



ELEVATION
 Scale: $1\frac{1}{2}$ " = 1'-0"

NOTE TO DESIGNER:
 Grade 36 bearings are to be used
 in bridge rehabilitation projects only.

* Edges may be left as cut or cast.

** Where bridge is not skewed, ϕ Brg. and
 ϕ shoe are coincident.

APPROVAL	
<i>E. S. Friedman</i>	DIRECTOR
OFFICE OF STRUCTURES	
DATE: 11/14/80	
REVISIONS	
SHA	FHWA
3-21-95	.
11-17-99	.
7-26-06	.
8-19-09	.

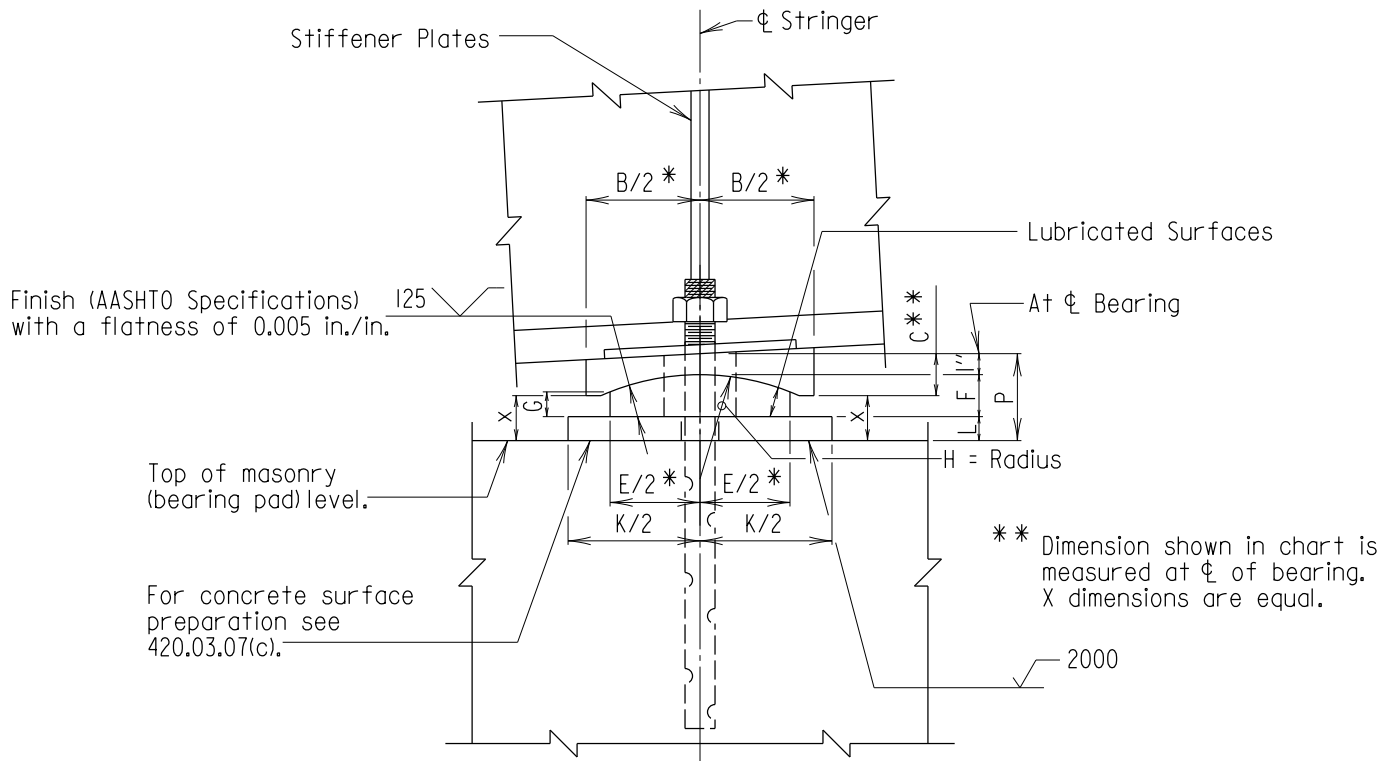
FHWA APPROVAL
 DATE: 6-8-90

STATE OF MARYLAND
 DEPARTMENT OF TRANSPORTATION
 STATE HIGHWAY ADMINISTRATION
 OFFICE OF STRUCTURES
 BRONZE EXPANSION BEARING
 MEDIUM LENGTH SPANS
 (GRADE 36 STEEL)

STANDARD NO. BR-SS(9.01)-80-114

SHEET 1 OF 2

SUPER
 BEARINGS



SIDE VIEW
Scale: 1 1/2" = 1'-0"

DATA SCHEDULE

Type	Sole Plate			Sliding Plate				Radius	Masonry R			Hole Loc.			Hgt.	Loads (Kips)			Total Expansion ± (0°F - 120°)
	A	B	C	D	E	F	G	H	J	K	L	M	N	P	Vert.	Horiz.	Dead		
ME36 - I	21	9½	1⅞	20	7½	1¾	1 ±	11	21	11	1	8½	1½	3¾	150	15	75	1	
ME36 - II	23	10½	2	22	8½	1¾	1 ±	12	23	12	1	9½	1½	3¾	200	20	100	1	
ME36 - III	25	11½	2	24	9½	1¾	1 ±	15	25	13	1	10½	1½	3¾	250	25	125	1	
ME36 - IV	26	13½	2⅜	25	11½	2⅞	1 ±	15	26	16	1	11	2	4⅞	300	30	150	1½	
ME36 - V	29	15½	2½	28	13½	2⅜	1 ±	18	29	17	1½	12½	2	4⅞	350	35	175	1¾	
ME36 - VI	30	16½	2¾	29	14½	2⅝	1 ±	18	30	20	1½	13	2¼	5⅞	400	40	200	2¼	

Note: All dimensions are in inches.

Note:

- Sole and masonry plates to be ASTM A 709 Grade 36, steel painted to match finished bridge color, convex plate shall be a self lubricating bronze bearing plate conforming to 910.01.
- Fill slots and holes around anchor bolts with nonhardening caulking compound or elastic joint sealer.
- 1000 RMS (Finish all over) except where otherwise noted.
- Rotation 1/2° ± Maximum.
- Design Masonry Bearing Load 1.0 KSI.
- Top of sole plate must be beveled to fit grade of bottom flange.
- Unless otherwise noted, bearings shall be placed normal to φ of stringer.
- Plates are to be shipped as units.

- If more than one size bearing is called for, Contractor may furnish all bearings of the larger size provided the bearing pads are altered to accommodate same. No increase in any prices bid will be allowed if this option is selected.
- All anchor bolts and washers shall be unpainted ASTM A 709 Grade 36 galvanized steel. All nuts shall be unpainted ASTM A 307 galvanized steel.
- Medium span range is considered 50' to 150' simple span lengths and comparable span continuous units.

APPROVAL	
<i>ESF</i> DIRECTOR	OFFICE OF STRUCTURES
DATE: 11/14/80	
REVISIONS	
SHA	FHWA
1-4-94	-
6-9-94	-
FHWA APPROVAL	11-17-99
DATE: 6-8-90	1-22-01

STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION
OFFICE OF STRUCTURES

BRONZE EXPANSION BEARING
MEDIUM LENGTH SPANS
(GRADE 36 STEEL)

STANDARD NO. BR-SS(9.01)-80-114

SHEET 2 OF 2

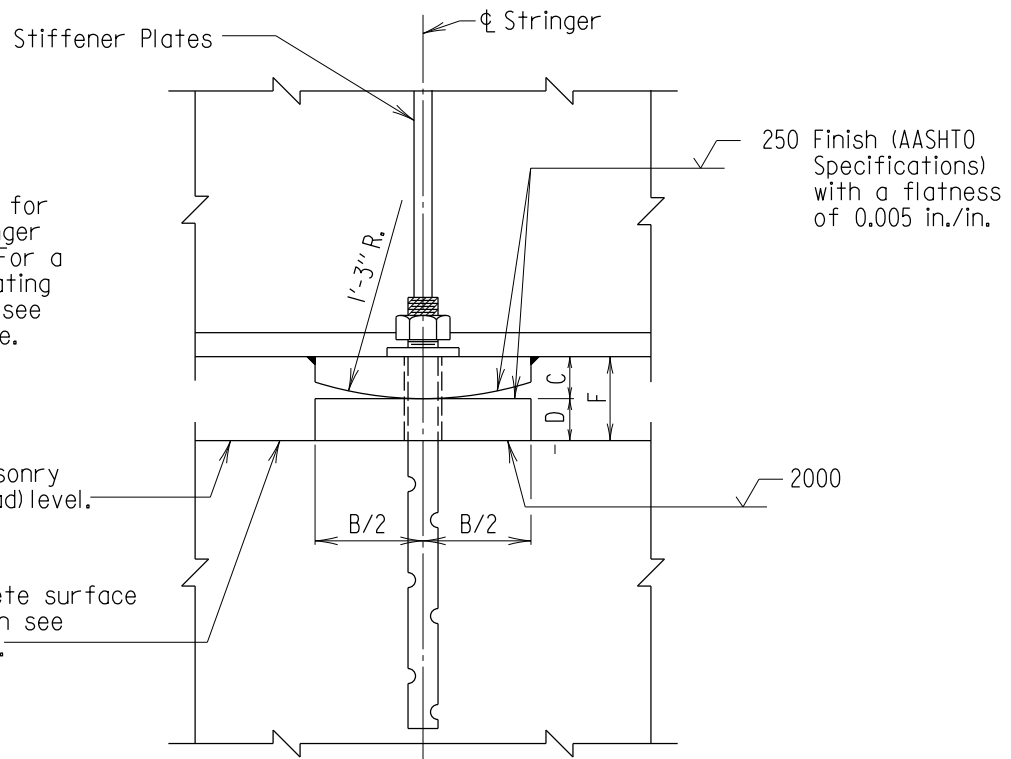
SUPER - BEARINGS

Note:

Side view drawn for continuous stringer over a bearing. For a stringer terminating at this bearing see details elsewhere.

Top of masonry (bearing pad) level.

For concrete surface preparation see 420.03.07(c).



SIDE VIEW

Scale: 1 1/2" = 1'-0"

DATA SCHEDULE

Type	Sole Plate			Masonry R			Hole Loc. Hgt.		Loads (Kips)	
	A	B	C	A	B	D	E	F	Vert.	Dead
MF36 - I	20	9	1 3/4	20	9	1 3/4	8	3 1/2	150	75
MF36 - II	22	11	2	22	11	2	9	4	200	100
MF36 - III	24	12	2 1/4	24	12	2 1/4	10	4 1/2	250	125
MF36 - IV	26	13	2 1/2	26	13	2 1/2	11	5	300	150
MF36 - V	30	15	2 3/4	30	15	2 3/4	13	5 1/2	350	175
MF36 - VI	32	16	3	32	16	3	14	6	400	200

Note: All dimensions are in inches.

Note:

- Sole and masonry plates to be ASTM A 709 Grade 36 steel painted to match finished bridge color.
- Fill slots and holes around anchor bolts with nonhardening caulking compound or elastic joint sealer.
- 1000 RMS (Finish all over) except where otherwise noted.
- Rotation 1/2° ± Maximum.
- Design Masonry Bearing Load 1.0 KSI.
- Top of sole plate must be beveled to fit grade of bottom flange.
- Unless otherwise noted, bearings shall be placed normal to ϕ of stringer.
- Plates are to be shipped as units.
- If more than one size bearing is called for, Contractor may furnish all bearings of the larger size provided the bearing pads are altered to accommodate same. No increase in any prices bid will be allowed if this option is selected.
- All anchor bolts and washers shall be unpainted ASTM A 709 Grade 36 galvanized steel. All nuts shall be unpainted ASTM A 307 galvanized steel.
- Medium span range is considered 50' to 150' simple span lengths.

APPROVAL

LS Friedman DIRECTOR
OFFICE OF STRUCTURES

DATE: 11/14/80

REVISIONS

SHA	FHWA
1-4-94	.
6-9-94	.
11-17-99	.
1-22-01	.

FHWA APPROVAL

DATE: 6-8-90

STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION
OFFICE OF STRUCTURES

FIXED BEARING
MEDIUM LENGTH SPANS
(GRADE 36 STEEL)

STANDARD NO. BR-SS(9.02)-80-115

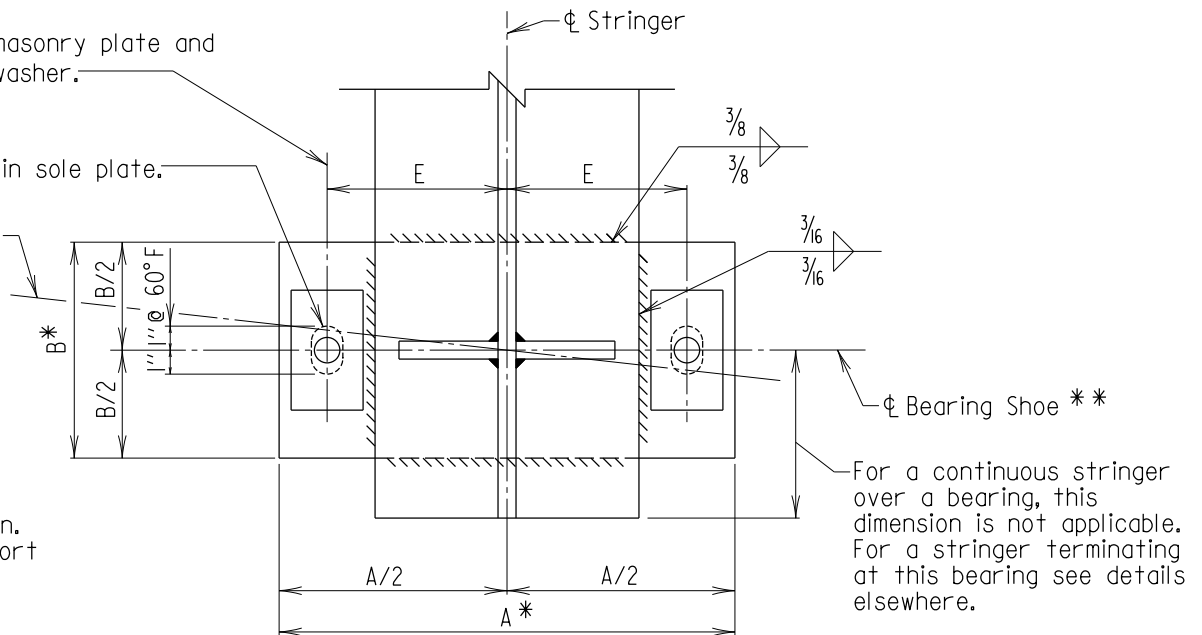
SHEET 2 OF 2

$1\frac{5}{16}$ " ϕ hole in masonry plate and
 $1\frac{1}{16}$ " ϕ hole in washer.

$1\frac{5}{16}$ " x 2" slot in sole plate.

ϕ of Brg. **

Note:
 1. Nut not shown.
 2. Pad and support
 not shown.

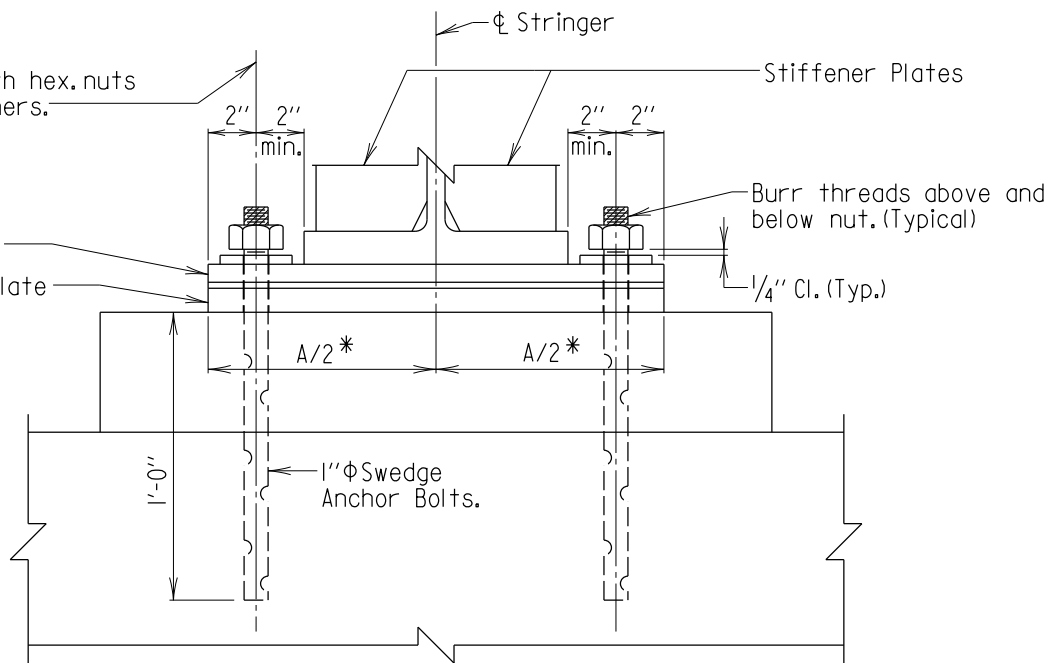


PLAN

Scale: $1\frac{1}{2}$ " = 1'-0"

ϕ 1" ϕ anchor bolts with hex. nuts
 and 3" x 5" x $\frac{3}{8}$ " washers.

Sole Plate
 Masonry Plate



ELEVATION

Scale: $1\frac{1}{2}$ " = 1'-0"

NOTE TO DESIGNER:

Grade 36 bearings are to be used
 in bridge rehabilitation projects only.

* Edges may be left as cut or cast.

** Where bridge is not skewed, ϕ Brg. and
 ϕ shoe are coincident.

APPROVAL	
<i>L. S. Fisher</i>	DIRECTOR
OFFICE OF STRUCTURES	
DATE: 5/18/81	
REVISIONS	
SHA	FHWA
3-21-95	.
11-17-99	.
7-26-06	.
8-19-09	.

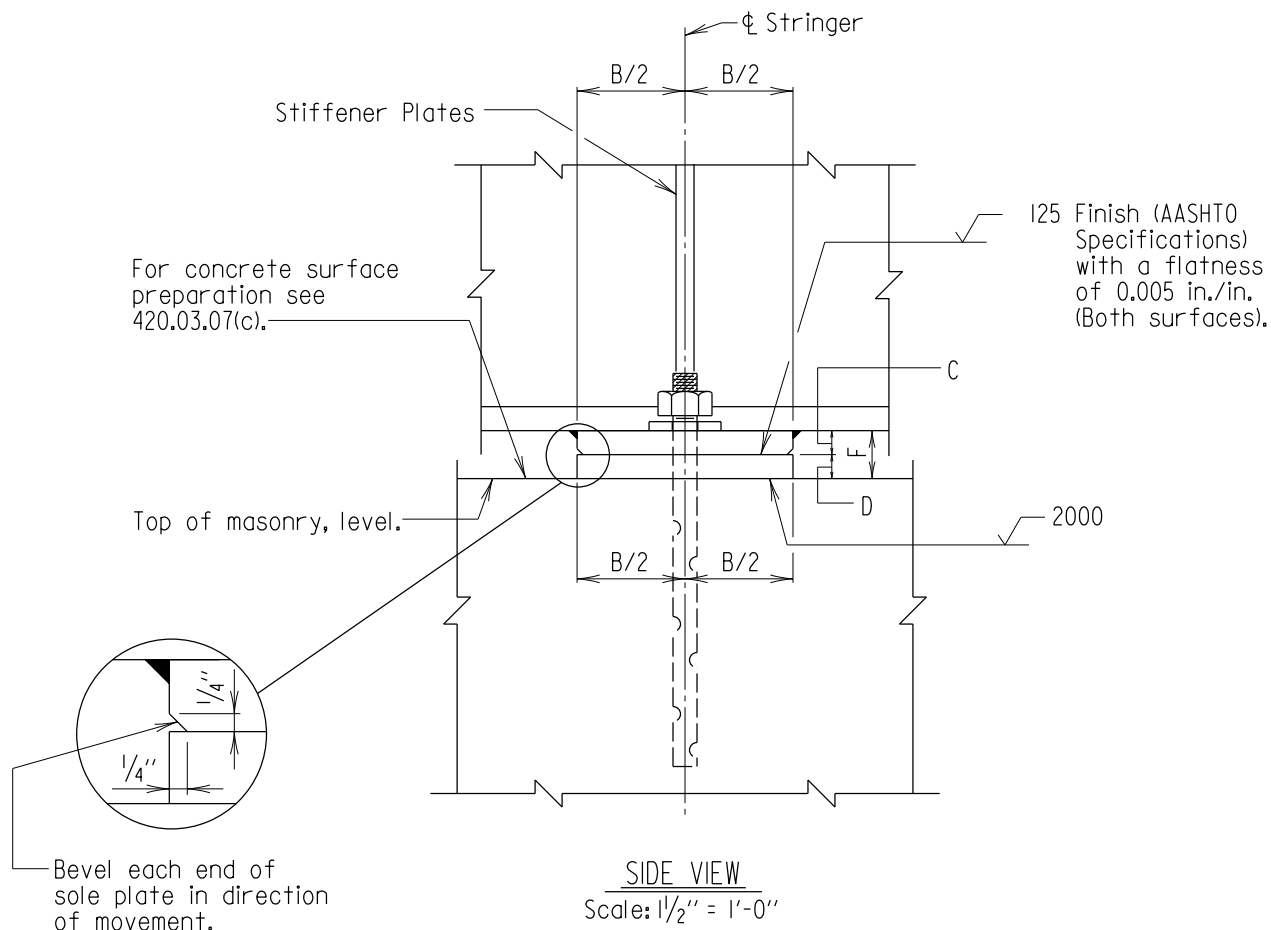
FHWA APPROVAL
 DATE: 6-8-90

STATE OF MARYLAND
 DEPARTMENT OF TRANSPORTATION
 STATE HIGHWAY ADMINISTRATION
 OFFICE OF STRUCTURES

EXPANSION BEARING
 SHORT LENGTH SPANS
 (GRADE 36 STEEL)

STANDARD NO. BR-SS(9.03)-81-I28

SHEET 1 OF 2



DATA SCHEDULE										
Type	Sole Plate			Masonry R			Hole Loc. Hgt.		Loads (Kips)	
	A	B	C	A	B	D	E	F	Vert.	Dead
SE36 - I	17	9	1	17	9	1	6 1/2	2	70	16
SE36 - II	19	9	1	19	9	1	7 1/2	2	85	23
SE36 - III	21	9	1	21	9	1	8 1/2	2	100	34

Note: All dimensions are in inches.

Note:

- Sole and masonry plates to be ASTM A 709 Grade 36 steel painted to match finished bridge color.
- Fill slots and holes around anchor bolts with nonhardening caulking compound or elastic joint sealer.
- 1000 RMS (Finish all over) except where otherwise noted.
- Design Bearing Load 0.7 KSI.
- Top of sole plate must be beveled to fit grade of bottom flange. If sole plate must be beveled, dimension 'C' shall be measured at ϕ of bearing.
- Unless otherwise noted, bearings shall be placed normal to ϕ of stringer.
- Plates are to be shipped as units.
- If more than one size bearing is called for, Contractor may furnish all bearings of the larger size provided the bearing pads are altered to accommodate same. No increase in any prices bid will be allowed if this option is selected.
- This bearing for use on simple span steel stringer bridges less than 50'-0" long and/or comparable continuous span lengths.
- All anchor bolts and washers shall be unpainted ASTM A 709 Grade 36 galvanized steel. All nuts shall be unpainted ASTM A 307 galvanized steel.

APPROVAL	
<i>Eschman</i> DIRECTOR	OFFICE OF STRUCTURES
DATE: 11/14/80	
REVISIONS	
SHA	FHWA
1-4-94	-
6-9-94	-
FHWA APPROVAL	11-17-99
DATE: 6-8-90	1-22-01

STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION
OFFICE OF STRUCTURES
EXPANSION BEARING
SHORT LENGTH SPANS
(GRADE 36 STEEL)

STANDARD NO. BR-SS(9.03)-81-128

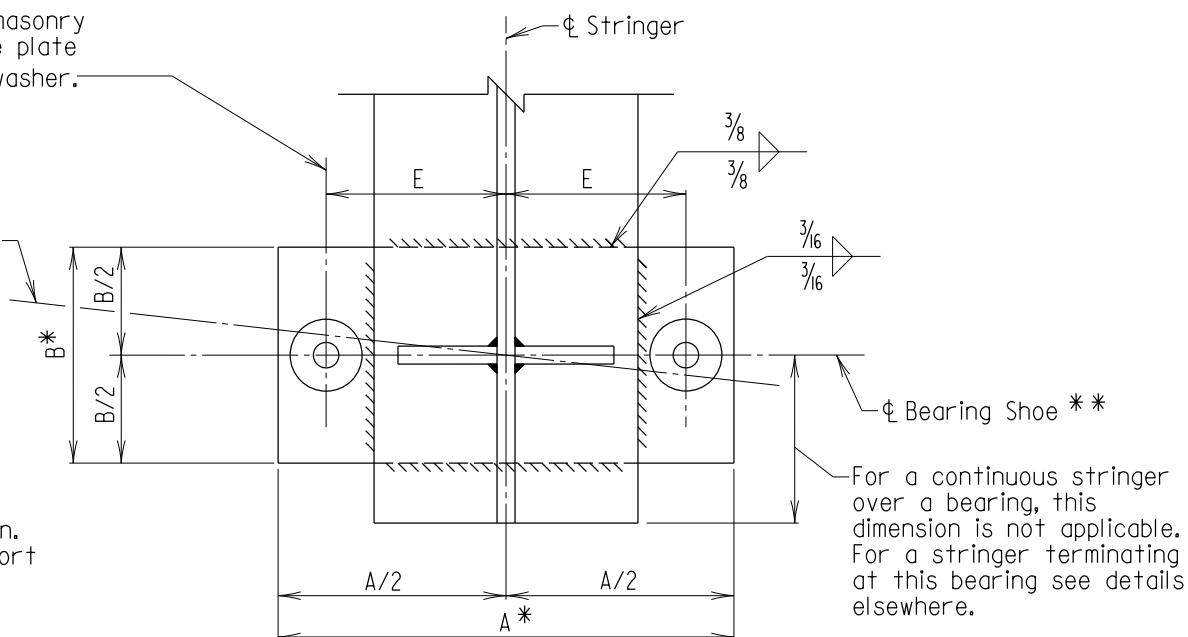
SHEET 2 OF 2

SUPER - BEARINGS

1 5/16" ϕ hole in masonry
plate and sole plate
1 1/16" ϕ hole in washer.

ϕ of Brg. **

Note:
1. Nut not shown.
2. Pad and support
not shown.

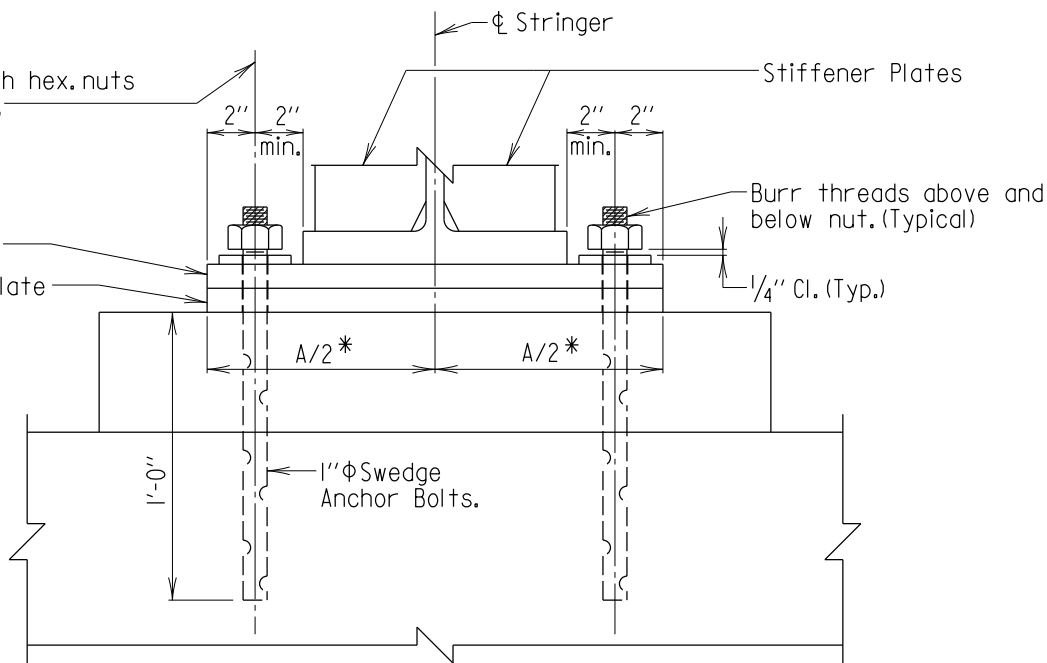


PLAN

Scale: 1 1/2" = 1'-0"

ϕ 1" ϕ anchor bolts with hex. nuts
and 3" ϕ x 3/8" washers.

Sole Plate
Masonry Plate



ELEVATION

Scale: 1 1/2" = 1'-0"

NOTE TO DESIGNER:
Grade 36 bearings are to be used
in bridge rehabilitation projects only.

* Edges may be left as cut or cast.

** Where bridge is not skewed, ϕ Brg. and
 ϕ shoe are coincident.

APPROVAL	
<i>E. S. Fisher</i>	DIRECTOR
OFFICE OF STRUCTURES	
DATE: 5/18/81	
REVISIONS	
SHA	FHWA
11-17-99	.
11-9-00	.
7-26-06	.
8-19-09	.

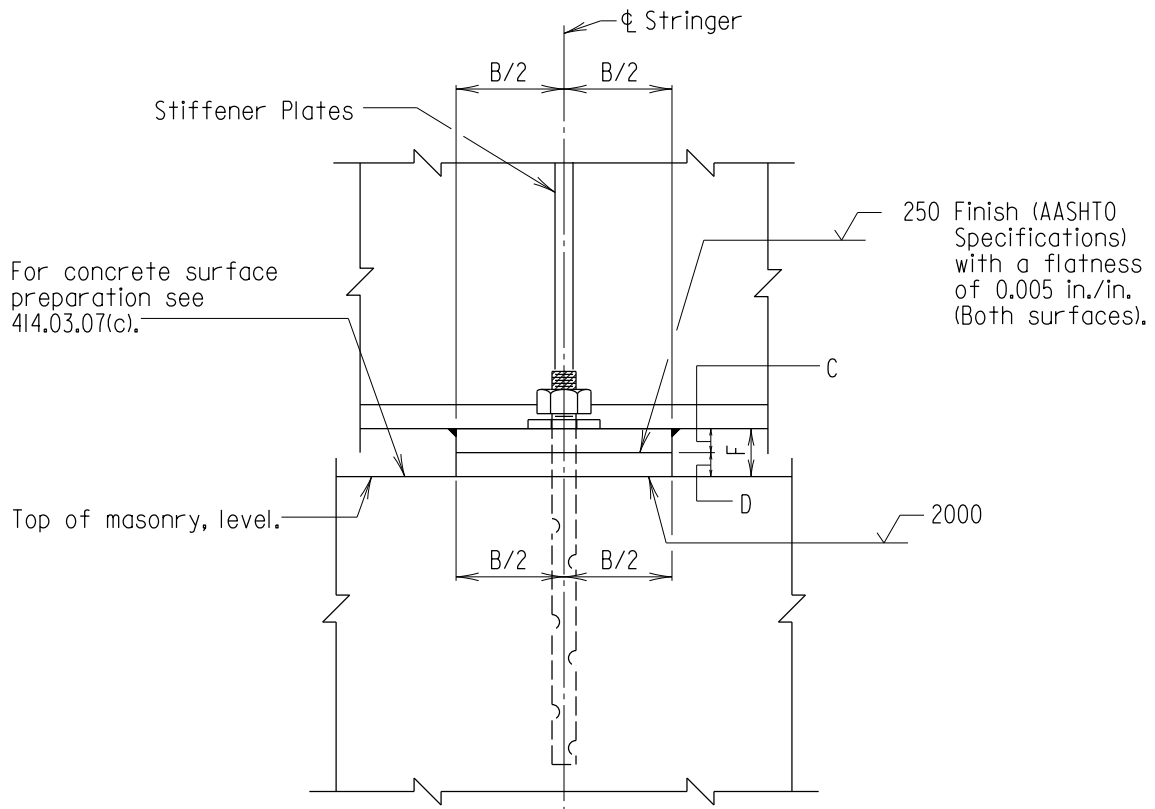
FHWA APPROVAL
DATE: 6-8-90

STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION
OFFICE OF STRUCTURES
FIXED BEARING
SHORT LENGTH SPANS
(GRADE 36 STEEL)

STANDARD NO. BR-SS(9.04)-81-129

SHEET 1 OF 2

SUPER - BEARINGS



SIDE VIEW
Scale: 1 1/2" = 1'-0"

DATA SCHEDULE										
Type	Sole Plate			Masonry R			Hole Loc. Hgt.		Loads (Kips)	
	A	B	C	A	B	D	E	F	Vert.	Dead
SF36 - I	17	9	1	17	9	1	6 1/2	2	70	16
SF36 - II	19	9	1	19	9	1	7 1/2	2	85	23
SF36 - III	21	9	1	21	9	1	8 1/2	2	100	34

Note: All dimensions are in inches.

Note:

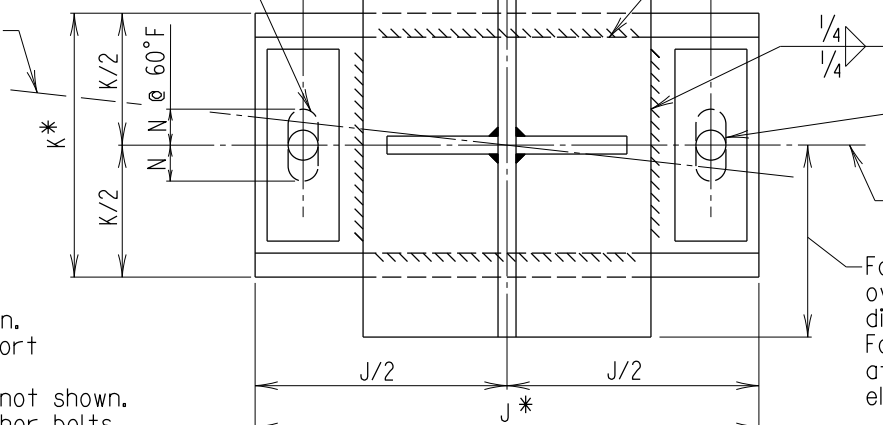
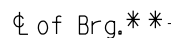
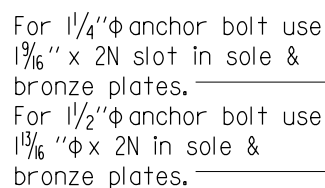
1. Sole and masonry plates to be A 709 Grade 36 steel painted to match finished bridge color.
2. Fill slots and holes around anchor bolts with nonhardening caulking compound or elastic joint sealer.
3. 1000 RMS (Finish all over) except where otherwise noted.
4. Design Bearing Load 0.7 KSI.
5. Top of sole plate must be beveled to fit grade of bottom flange. If sole plate must be beveled, dimension 'C' shall be measured at φ of bearing.
6. Unless otherwise noted, bearings shall be placed normal to φ of stringer.
7. Plates are to be shipped as units.
8. If more than one size bearing is called for, Contractor may furnish all bearings of the larger size provided the bearing pads are altered to accommodate same. No increase in any prices bid will be allowed if this option is selected.
9. This bearing for use on simple span steel stringer bridges less than 50'-0" long and/or comparable continuous span lengths.
10. All anchor bolts and washers shall be unpainted A 709 Grade 36 galvanized steel. All nuts shall be unpainted A 307 galvanized steel.

APPROVAL	
<i>Les Fudum</i> DIRECTOR	OFFICE OF STRUCTURES
DATE: 11/14/80	
REVISIONS	
SHA	FHWA
6-8-93	.
1-4-94	.
6-9-94	.
11-17-99	.

STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION
OFFICE OF STRUCTURES
**FIXED BEARING
SHORT LENGTH SPANS
(GRADE 36 STEEL)**

STANDARD NO. BR-SS(9.04)-81-129

SHEET 2 OF 2



Note:

1. Nut not shown.
2. Pad and support not shown.
3. Sliding plate not shown.
4. Additional anchor bolts required for spans 150' or greater see sheet 3 of 3.

For 1/4"φ anchor bolt use
1 9/16"φ hole in masonry R &
1 5/16"φ hole in washer. _____

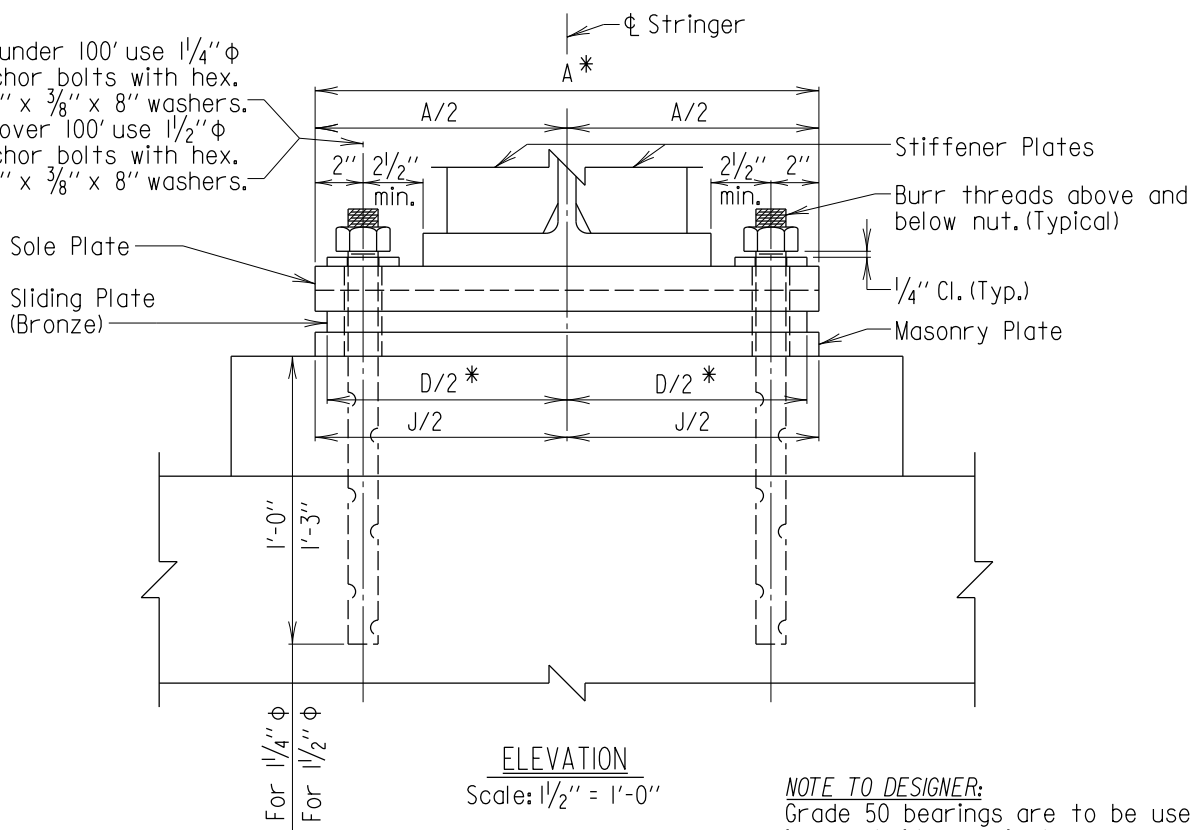
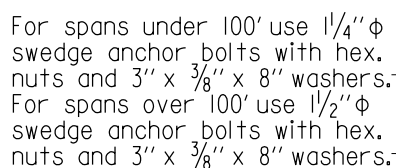
For 1/2"φ anchor bolt use
1 3/16"φ hole in masonry R &
1 9/16"φ hole in washer.

—c Bearing Shoe **

—For a continuous stringer over a bearing, this dimension is not applicable. For a stringer terminating at this bearing see details elsewhere.

PLAN

Scale: $1\frac{1}{2}'' = 1'-0''$



NOTE TO DESIGNER:

Grade 50 bearings are to be used in new bridge projects.

* Edges may be left as cut or cast.

* * Where bridge is not skewed, ϕ Brg. and ϕ shoe are coincident.

APPROVAL	
<u>E.S. Friedman</u> DIRECTOR OFFICE OF STRUCTURES	
DATE: 11/19/99	
REVISIONS	
SHA	FHWA
7-26-06	.
8-19-09	.
.	.
.	.

STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION
OFFICE OF STRUCTURES

BRONZE EXPANSION BEARING
MEDIUM LENGTH SPANS
(GRADE 50 STEEL)

STANDARD NO. BR-SS(9.05)-99-335

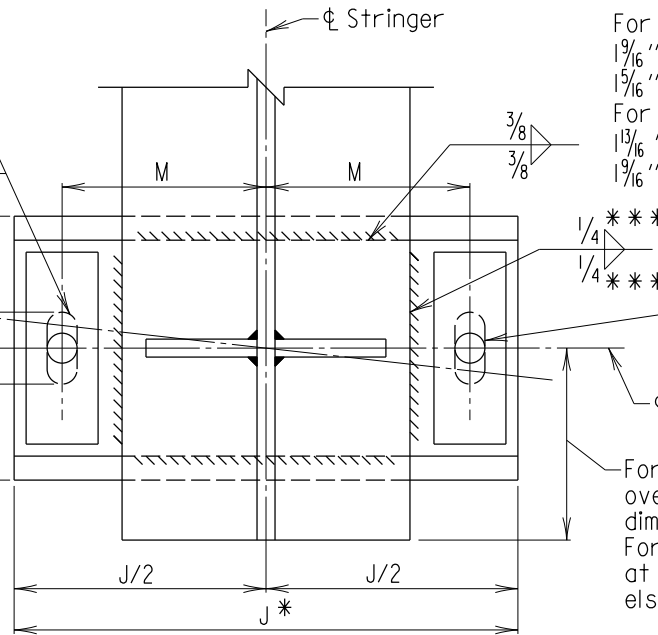
SHEET 1 OF 3

SUPER - BEARINGS

For $1\frac{1}{4}$ " ϕ anchor bolt use
 $1\frac{9}{16}$ " x 2N slot in sole &
 bronze plates.
 For $1\frac{1}{2}$ " ϕ anchor bolt use
 $1\frac{13}{16}$ " x 2N in sole &
 bronze plates.

ϕ of Brg. **

- Note:
1. Nut not shown.
 2. Pad and support not shown.
 3. Sliding plate not shown.
 4. Additional anchor bolts required for spans 150' or greater see sheet 3 of 3.



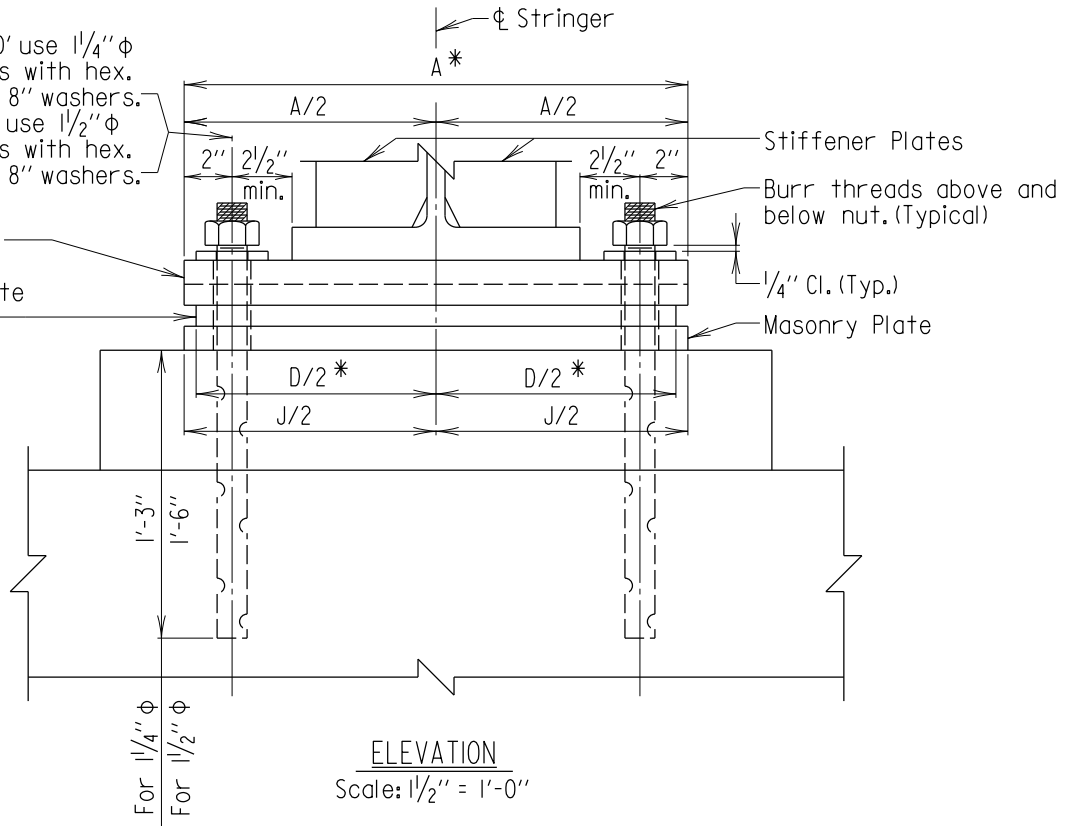
PLAN

Scale: $1\frac{1}{2}$ " = 1'-0"

For spans under 100' use $1\frac{1}{4}$ " ϕ swedge anchor bolts with hex. nuts and 3 " x $\frac{3}{8}$ " x 8 " washers.
 For spans over 100' use $1\frac{1}{2}$ " ϕ swedge anchor bolts with hex. nuts and 3 " x $\frac{3}{8}$ " x 8 " washers.

Sole Plate

Sliding Plate
 (Bronze)



ELEVATION

Scale: $1\frac{1}{2}$ " = 1'-0"

* Edges may be left as cut or cast.

** Where bridge is not skewed, ϕ Brg. and ϕ shoe are coincident.

*** Minimums shown. Engineer Shall Design.

APPROVAL	
<i>Les Fudum</i>	DIRECTOR
OFFICE OF STRUCTURES	
DATE: 11/19/99	
REVISIONS	
SHA	FHWA
1-21-09	.
8-19-09	.
FHWA APPROVAL	.
DATE:	.

STATE OF MARYLAND
 DEPARTMENT OF TRANSPORTATION
 STATE HIGHWAY ADMINISTRATION
 OFFICE OF STRUCTURES

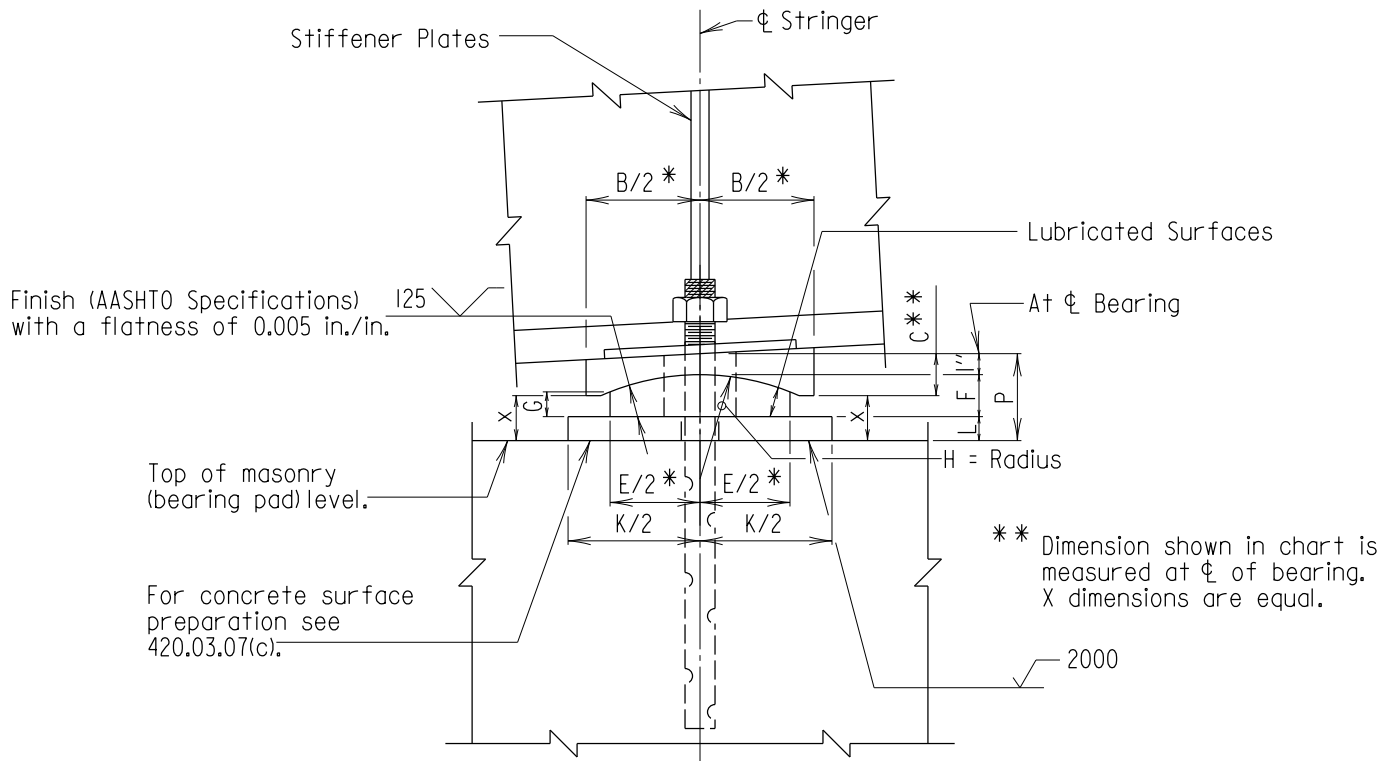
BRONZE EXPANSION BEARING
 MEDIUM LENGTH SPANS
 (GRADE 50 STEEL)

STANDARD NO. BR-SS(9.05)-99-335(L)

SHEET 1 OF 3



SUPER - BEARINGS



SIDE VIEW
Scale: 1 1/2" = 1'-0"

DATA SCHEDULE

Type	Sole Plate			Sliding Plate				Radius	Masonry P			Hole Loc.		Hgt.	Loads (Kips)			Total Expansion ± (0°F - 120°)
	A	B	C	D	E	F	G		J	K	L	M	N		Vert.	Horiz.	Dead	
ME50 - I	21	9 1/2	1 3/4	20	7 1/2	1 3/4	1 ±	11	21	11	1	8 1/2	1 1/2	3 3/4	145	10	70	1 1/2
ME50 - II	23	10 1/2	1 7/8	22	8 1/2	1 3/4	1 ±	12	23	12	1	9 1/2	1 1/2	3 3/4	185	15	90	1 1/2
ME50 - III	25	11 1/2	2	24	9 1/2	1 3/4	1 ±	15	25	13	1	10 1/2	1 1/2	3 3/4	225	20	110	1 1/2
ME50 - IV	26	14 1/2	2 1/8	25	12 1/2	2	1 ±	18	26	16	1	11	2	4	310	30	155	2 1/2
ME50 - V	29	15 1/2	2 3/8	28	13 1/2	2 1/4	1 ±	18	29	17	1 1/2	12 1/2	2	4 3/4	375	35	185	2 1/2
ME50 - VI	30	16 1/2	2 1/2	29	14 1/2	2 3/8	1 ±	19	30	20	1 1/2	13	2 1/2	4 7/8	420	40	210	3 1/2
ME50 - VII	31	18 1/2	2 1/2	30	15 1/2	2 3/8	1 ±	22	31	23	2	13 1/2	3	5 3/8	460	45	230	4 1/2
ME50 - VIII	32	19 1/2	2 5/8	31	16 1/2	2 1/2	1 ±	23	32	24	2 1/2	14	3 1/2	6	510	50	255	5 1/2

Note: All dimensions are in inches.

Note:

- Sole and masonry plates to be ASTM A 709 Grade 50, steel painted to match finished bridge color, convex plate shall be a self lubricating bronze bearing plate conforming to 910.01.
- Fill slots and holes around anchor bolts with nonhardening caulking compound or elastic joint sealer.
- 1000 RMS (Finish all over) except where otherwise noted.
- Rotation 1/2° ± Maximum.
- Design Masonry Bearing Load 1.0 KSI.
- Top of sole plate must be beveled to fit grade of bottom flange.
- Unless otherwise noted, bearings shall be placed normal to φ of stringer.
- Plates are to be shipped as units.

- If more than one size bearing is called for, Contractor may furnish all bearings of the larger size provided the bearing pads are altered to accommodate same. No increase in any prices bid will be allowed if this option is selected.
- All anchor bolts and washers shall be unpainted ASTM A 709 Grade 36 galvanized steel. All nuts shall be unpainted ASTM A 307 galvanized steel.
- Medium span range is considered 50' to 150' simple span lengths and comparable span continuous units.

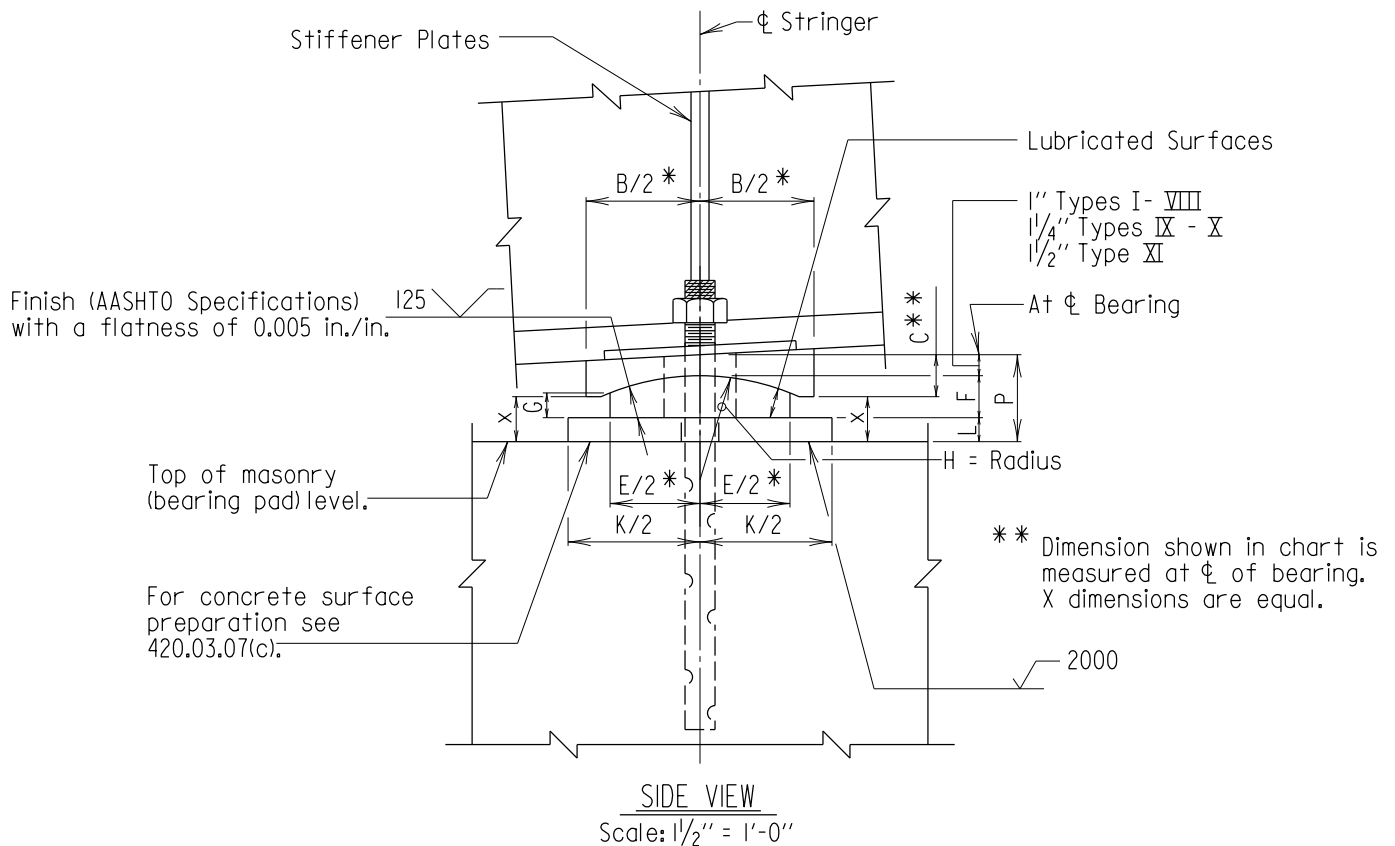
APPROVAL	
<i>LS Fudum</i> DIRECTOR	OFFICE OF STRUCTURES
DATE: 11/19/99	
REVISIONS	
SHA	FHWA
3-7-00	
9-15-00	
FHWA APPROVAL	1-22-01
DATE:	

STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION
OFFICE OF STRUCTURES

BRONZE EXPANSION BEARING
MEDIUM LENGTH SPANS
(GRADE 50 STEEL)

STANDARD NO. BR-SS(9.05)-99-335

SHEET 2 OF 3



DATA SCHEDULE

Type	Sole Plate			Sliding Plate				Radius	Masonry			Hole Loc.		Hgt.	Max. Bottom Fl. W.	Strength Limit State Loads	Service Limit State Loads	Allow Exp. (+/-) (Note 4)
	A	B	C	D	E	F	G		J	K	L	M	N	P				
ME50 - I	21	9 1/2	1 3/4	20	7 1/2	1 3/4	1 ±	11	21	11	1	8 1/2	1 1/2	3 3/4	12	200 k	120 k	3/4
ME50 - II	23	10 1/2	1 7/8	22	8 1/2	1 3/4	1 ±	12	23	12	1	9 1/2	1 3/4	3 3/4	14	300 k	185 k	1
ME50 - III	25	12 1/2	2	24	9 1/2	1 3/4	1 ±	15	25	13	1 1/4	10 1/2	2	4	16	400 k	250 k	1 1/4
ME50 - IV	27	13 1/2	2 1/8	26	11	2	1 ±	16	27	16	1 1/4	11 1/2	2 1/4	4 1/4	18	500 k	310 k	1 1/2
ME50 - V	29	15 1/2	2 3/8	28	13	2 1/4	1 ±	18	29	17	1 1/2	12 1/2	2 1/2	4 3/4	20	600 k	375 k	1 3/4
ME50 - VI	31	17	2 1/2	30	14 1/2	2 3/8	1 ±	20	31	20	1 1/2	13 1/2	2 3/4	4 7/8	22	700 k	440 k	2
ME50 - VII	33	18 1/2	2 1/2	32	15 1/2	2 3/8	1 ±	23	33	23	2	14 1/2	3	5 3/8	24	800 k	505 k	2 1/4
ME50 - VIII	35	19	2 5/8	34	16 1/2	2 1/2	1 ±	23	35	24	2 1/2	15 1/2	3 1/4	6	26	900 k	570 k	2 1/2
ME50 - IX	37	21	3	36	17 1/2	2 3/4	1 1/4 ±	26	37	25	2 1/2	16 1/2	3 1/2	6 1/2	28	1000 k	635 k	2 3/4
ME50 - X	39	21	3	38	17 1/2	2 3/4	1 1/4 ±	26	39	26	2 3/4	17 1/2	4	6 3/4	30	1100 k	700 k	3 1/4
ME50 - XI	41	22	3 1/4	40	18	3	1 1/2 ±	28	41	27	3	18 1/2	4 1/2	7 1/2	32	1200 k	760 k	3 3/4

Note: All dimensions are in inches.

Note:

- Sole and masonry plates to be ASTM A 709 Grade 50, steel painted to match finished bridge color, convex plate shall be a self lubricating bronze bearing plate conforming to 910.01.
- Fill slots and holes around anchor bolts with nonhardening caulking compound or elastic joint sealer.
- 1000 RMS (Finish all over) except where otherwise noted.
- Allowable expansion is based on a 60°F. temperature change from center slot setting at 60°F.
- Compressive strength of concrete bearing area shall be 3.5 ksi or greater.
- Top of sole plate must be beveled to fit grade of bottom flange.
- Unless otherwise noted, bearings shall be placed normal to center of stringer.
- Plates are to be shipped as units.
- If more than one size bearing is called for, Contractor may furnish all bearings of the larger size provided the bearing pads are altered to accommodate same. No increase in any prices bid will be allowed if this option is selected.
- All anchor bolts and washers shall be unpainted ASTM F 1554 Grade 36 galvanized steel. All nuts shall be unpainted ASTM A 563 galvanized steel.
- The maximum design rotation due to strength load combinations (θ_u) = 0.75".

APPROVAL	
<i>LS Fudim</i> DIRECTOR	OFFICE OF STRUCTURES
DATE: 11/19/99	
REVISIONS	
SHA	FHWA
1-22-01	.
10-9-07	.
1-21-09	.
4-21-09	.

FHWA APPROVAL
DATE: 7-19-11

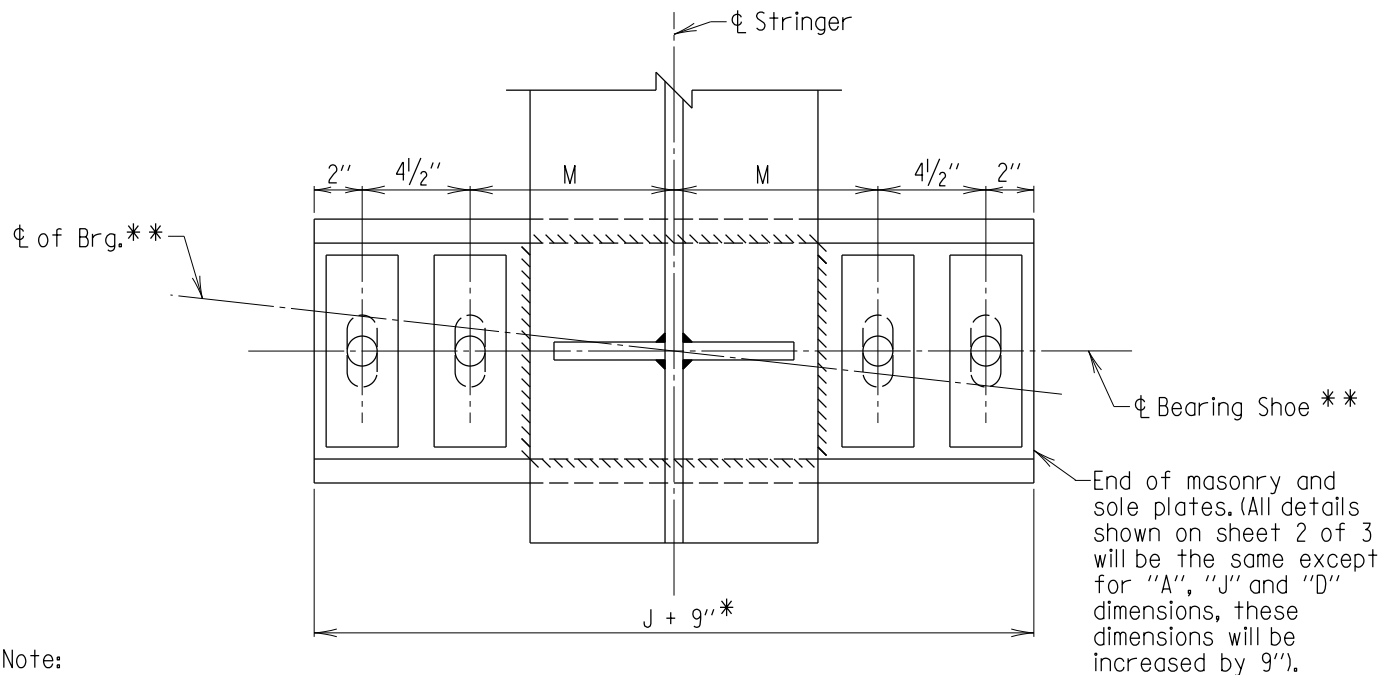
STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION
OFFICE OF STRUCTURES

BRONZE EXPANSION BEARING
MEDIUM LENGTH SPANS
(GRADE 50 STEEL)

STANDARD NO. BR-SS(9.05)-99-335(L)

SHEET 2 OF 3






PLAN
FOR ALL GIRDERS WITH SPAN LENGTHS 150' OR GREATER
 Scale: 1 1/2" = 1'-0"

Note:

To accommodate AASHTO Requirements, bearings for girders 150' or greater shall be extended to accommodate 2 additional bolts. Size and details of all 4 anchor bolts to be the same as that required for 2 bolt bearings.

* Edges may be left as cut or cast.

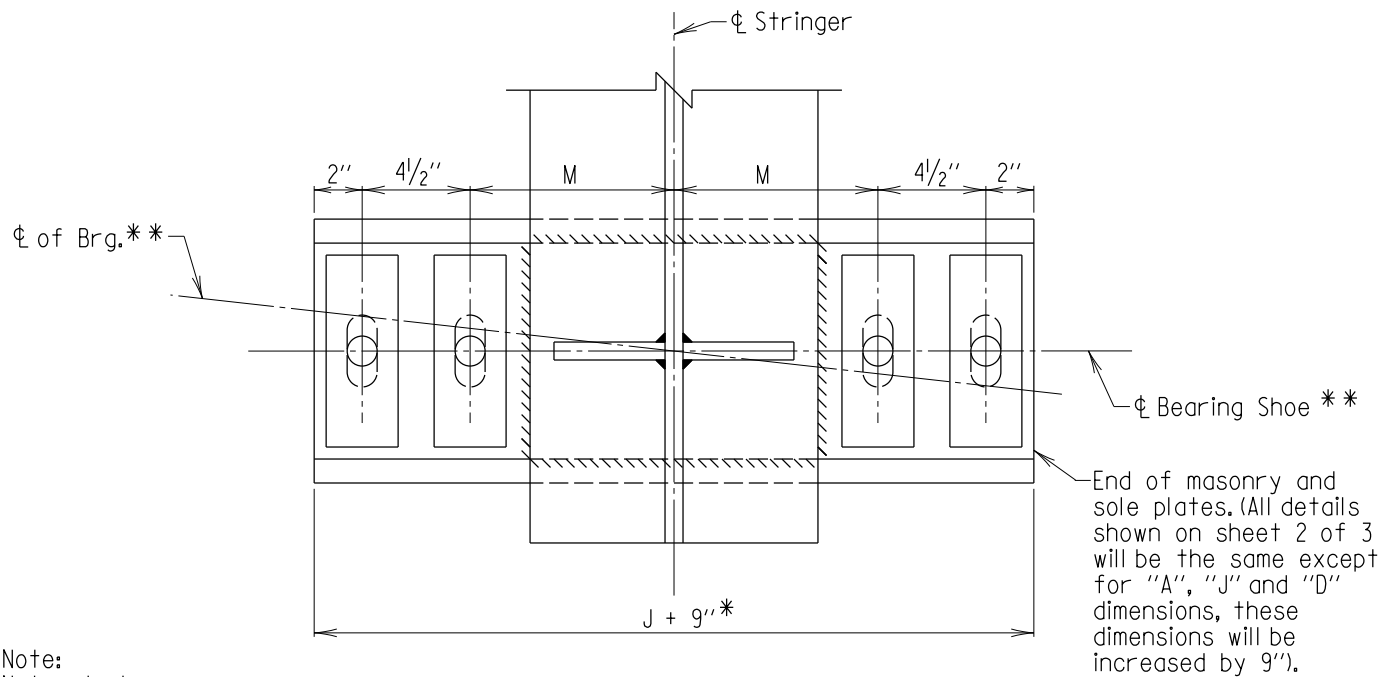
** Where bridge is not skewed, ϕ Brg. and ϕ shoe are coincident.

APPROVAL	
 DIRECTOR OFFICE OF STRUCTURES	
DATE: 11/19/99	
REVISIONS	
SHA	FHWA
.	.
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.	.
FHWA APPROVAL	.
DATE: .	.

STATE OF MARYLAND
 DEPARTMENT OF TRANSPORTATION
 STATE HIGHWAY ADMINISTRATION
 OFFICE OF STRUCTURES
 BRONZE EXPANSION BEARING
 MEDIUM LENGTH SPANS
 (GRADE 50 STEEL)

STANDARD NO. BR-SS(9.05)-99-335

SHEET 3 OF 3



PLAN
FOR ALL GIRDERS WITH SPAN LENGTHS 150' OR GREATER
Scale: 1 1/2" = 1'-0"

Note:
Bearings for girders 150' or greater shall be extended to accommodate 2 additional bolts. Size and details of all 4 anchor bolts to be the same as that required for 2 bolt bearings.

* Edges may be left as cut or cast.

** Where bridge is not skewed, ϕ Brg. and ϕ shoe are coincident.

APPROVAL	
<i>E. S. Fisher</i>	DIRECTOR
OFFICE OF STRUCTURES	
DATE: 11/19/99	
REVISIONS	
SHA	FHWA
10-9-07	.
.	.
FHWA APPROVAL	.
DATE:	.

STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION
OFFICE OF STRUCTURES
BRONZE EXPANSION BEARING
MEDIUM LENGTH SPANS
(GRADE 50 STEEL)



STANDARD NO. BR-SS(9.05)-99-335(L)

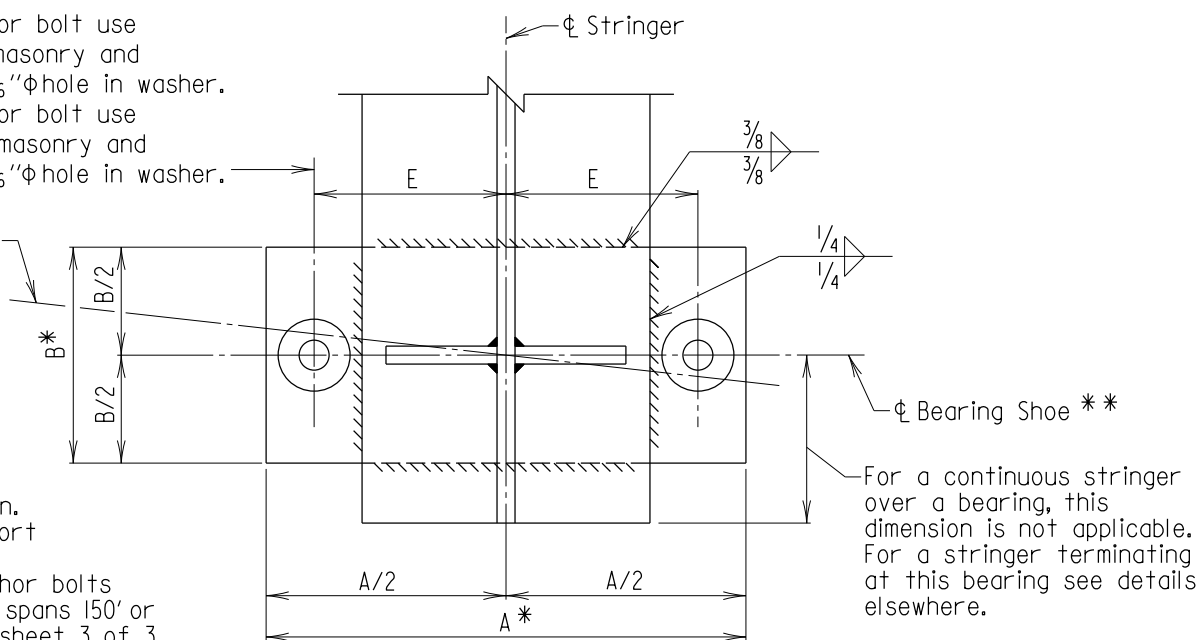
SHEET 3 OF 3

For $1\frac{1}{4}" \phi$ anchor bolt use
 $1\frac{3}{16}" \phi$ hole in masonry and
sole plates $1\frac{5}{16}" \phi$ hole in washer.
For $1\frac{1}{2}" \phi$ anchor bolt use
 $1\frac{3}{16}" \phi$ hole in masonry and
sole plates $1\frac{9}{16}" \phi$ hole in washer.

ϕ of Brg. **

Note:

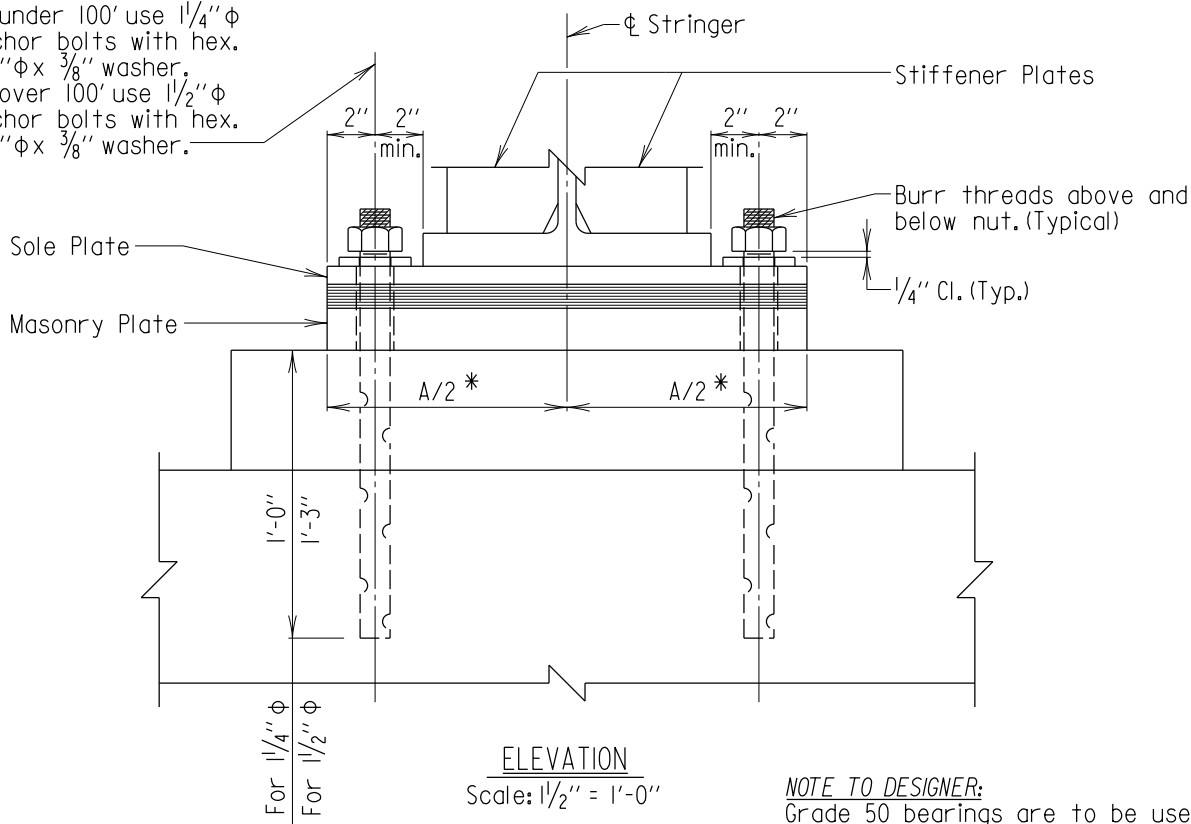
1. Nut not shown.
2. Pad and support not shown.
3. Additional anchor bolts required for spans 150' or greater see sheet 3 of 3.



PLAN

Scale: $1\frac{1}{2}" = 1'-0"$

For spans under 100' use $1\frac{1}{4}" \phi$
swedge anchor bolts with hex.
nuts and $3" \phi \times \frac{3}{8}"$ washer.
For spans over 100' use $1\frac{1}{2}" \phi$
swedge anchor bolts with hex.
nuts and $3" \phi \times \frac{3}{8}"$ washer.



ELEVATION

Scale: $1\frac{1}{2}" = 1'-0"$

NOTE TO DESIGNER:

Grade 50 bearings are to be used
in new bridge projects.

* Edges may be left as cut or cast.

** Where bridge is not skewed, ϕ Brg. and
 ϕ shoe are coincident.

APPROVAL	
<i>E. S. Fisher</i>	DIRECTOR
OFFICE OF STRUCTURES	
DATE: 11/19/99	
REVISIONS	
SHA	FHWA
7-26-06	.
8-19-09	.
FHWA APPROVAL	.
DATE:	.

STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION
OFFICE OF STRUCTURES
FIXED BEARING
MEDIUM LENGTH SPANS
(GRADE 50 STEEL)

STANDARD NO. BR-SS(9.06)-99-336

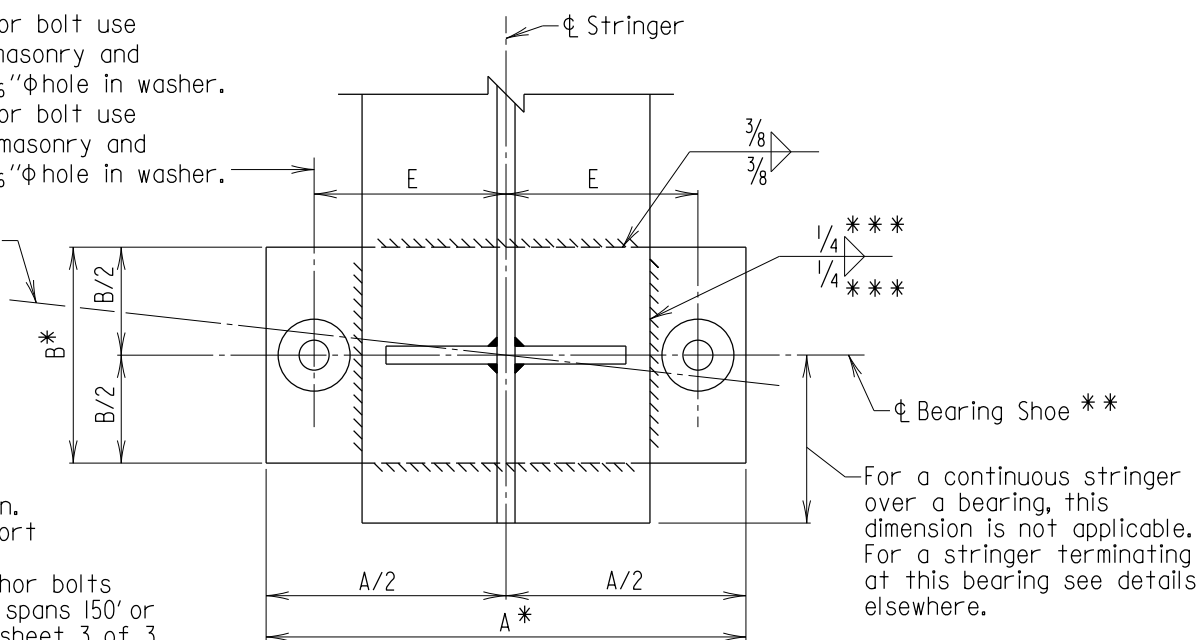
SHEET 1 OF 3

For $1\frac{1}{4}" \phi$ anchor bolt use
 $1\frac{9}{16}" \phi$ hole in masonry and
sole plates $1\frac{5}{16}" \phi$ hole in washer.
For $1\frac{1}{2}" \phi$ anchor bolt use
 $1\frac{13}{16}" \phi$ hole in masonry and
sole plates $1\frac{9}{16}" \phi$ hole in washer.

ϕ of Brg. **

Note:

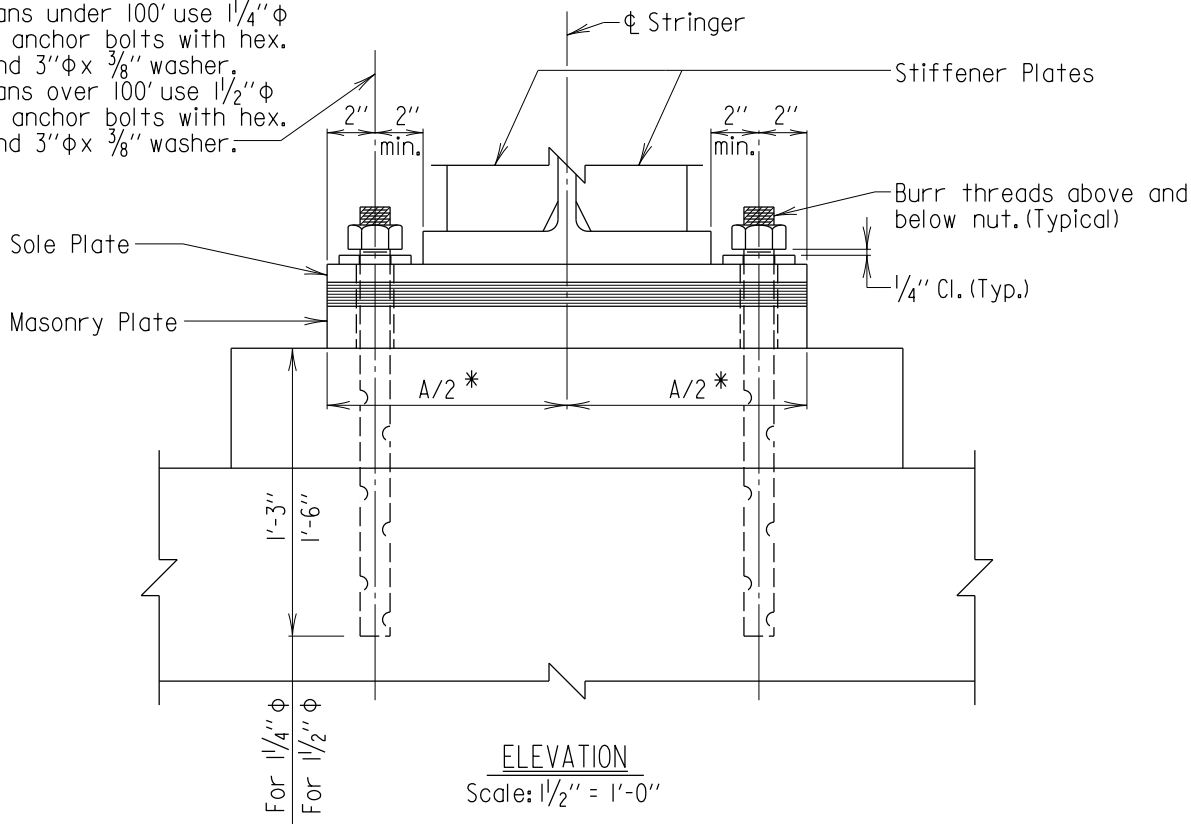
1. Nut not shown.
2. Pad and support not shown.
3. Additional anchor bolts required for spans 150' or greater see sheet 3 of 3.



PLAN

Scale: $1\frac{1}{2}" = 1'-0"$

*** For spans under 100' use $1\frac{1}{4}" \phi$ swedge anchor bolts with hex. nuts and $3" \phi \times \frac{3}{8}"$ washer.
For spans over 100' use $1\frac{1}{2}" \phi$ swedge anchor bolts with hex. nuts and $3" \phi \times \frac{3}{8}"$ washer.



ELEVATION

Scale: $1\frac{1}{2}" = 1'-0"$

* Edges may be left as cut or cast.

** Where bridge is not skewed, ϕ Brg. and ϕ shoe are coincident.

*** Minimums shown. Engineer Shall Design.

APPROVAL	
<i>Eschman</i>	DIRECTOR
OFFICE OF STRUCTURES	
DATE: 11/19/99	
REVISIONS	
SHA	FHWA
1-21-09	.
8-19-09	.
FHWA APPROVAL	.
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STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION
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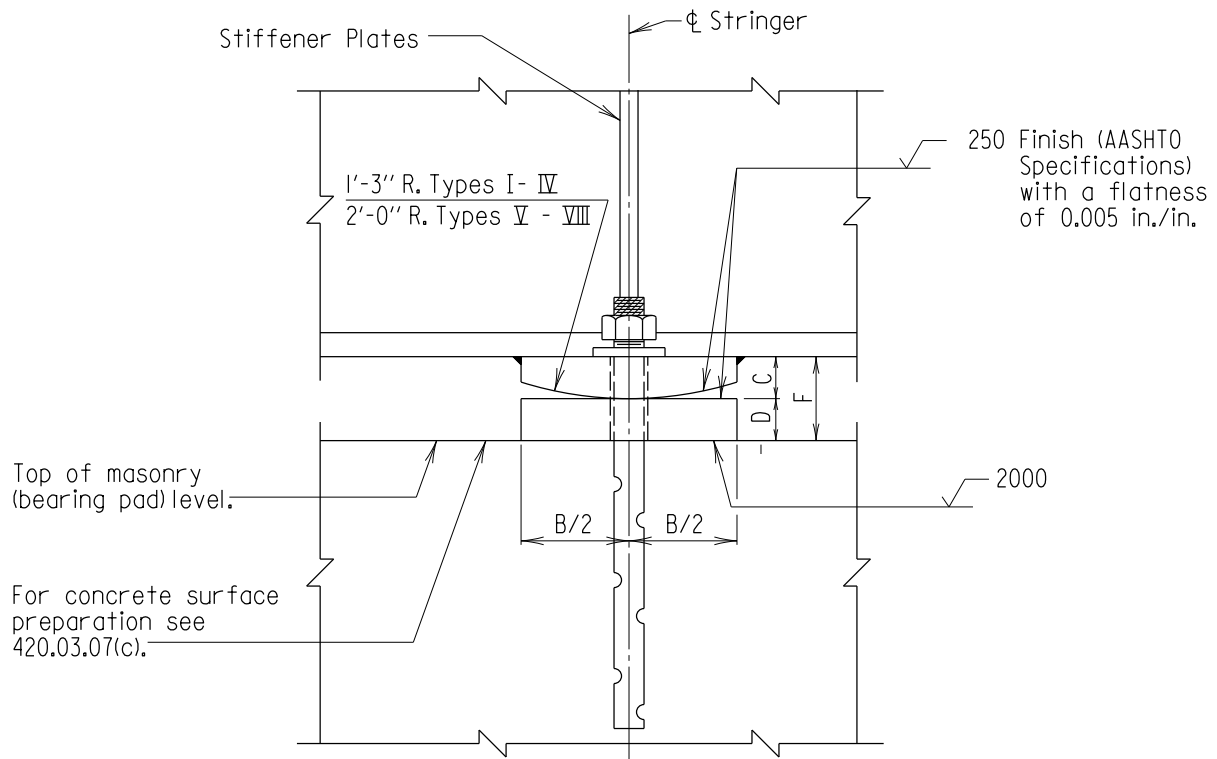
FIXED BEARING
MEDIUM LENGTH SPANS
(GRADE 50 STEEL)

STANDARD NO. BR-SS(9.06)-99-336(L)

SHEET 1 OF 3



SUPER - BEARINGS



DATA SCHEDULE

Type	Sole Plate			Masonry R			Hole Loc.		Hgt.	Loads (Kips)	
	A	B	C	A	B	D	E	F		Vert.	Dead
MF50 - I	20	9	1 3/4	20	9	1 3/4	8	3 1/2		175	85
MF50 - II	22	11	1 7/8	22	11	1 7/8	9	3 3/4		240	120
MF50 - III	24	12	2	24	12	2	10	4		285	140
MF50 - IV	26	13	2 1/4	26	13	2 1/4	11	4 1/2		335	165
MF50 - V	30	15	2 1/2	30	15	2 1/2	13	5		445	220
MF50 - VI	32	16	2 3/4	32	16	2 3/4	14	5 1/2		510	255
MF50 - VII	34	18	2 7/8	34	18	2 7/8	15	5 3/4		610	305
MF50 - VIII	36	20	3	36	20	3	16	6		715	355

Note:

Note: All dimensions are in inches.

- Sole and masonry plates to be ASTM A 709 Grade 50 steel painted to match finished bridge color.
- Fill slots and holes around anchor bolts with nonhardening caulking compound or elastic joint sealer.
- 1000 RMS (Finish all over) except where otherwise noted.
- Rotation $\frac{1}{2}^\circ \pm$ Maximum.
- Design Masonry Bearing Load 1.0 KSI.
- Top of sole plate must be beveled to fit grade of bottom flange.
- Unless otherwise noted, bearings shall be placed normal to ϕ of stringer.
- Plates are to be shipped as units.
- If more than one size bearing is called for, Contractor may furnish all bearings of the larger size provided the bearing pads are altered to accommodate same. No increase in any prices bid will be allowed if this option is selected.
- All anchor bolts and washers shall be unpainted ASTM A 709 Grade 36 galvanized steel. All nuts shall be unpainted ASTM A 307 galvanized steel.
- Medium span range is considered 50' to 150' simple span lengths.

APPROVAL

Les Fudum DIRECTOR
OFFICE OF STRUCTURES

DATE: 11/19/99

REVISIONS

SHA	FHWA
1-22-01	.
3-13-01	.

FHWA APPROVAL

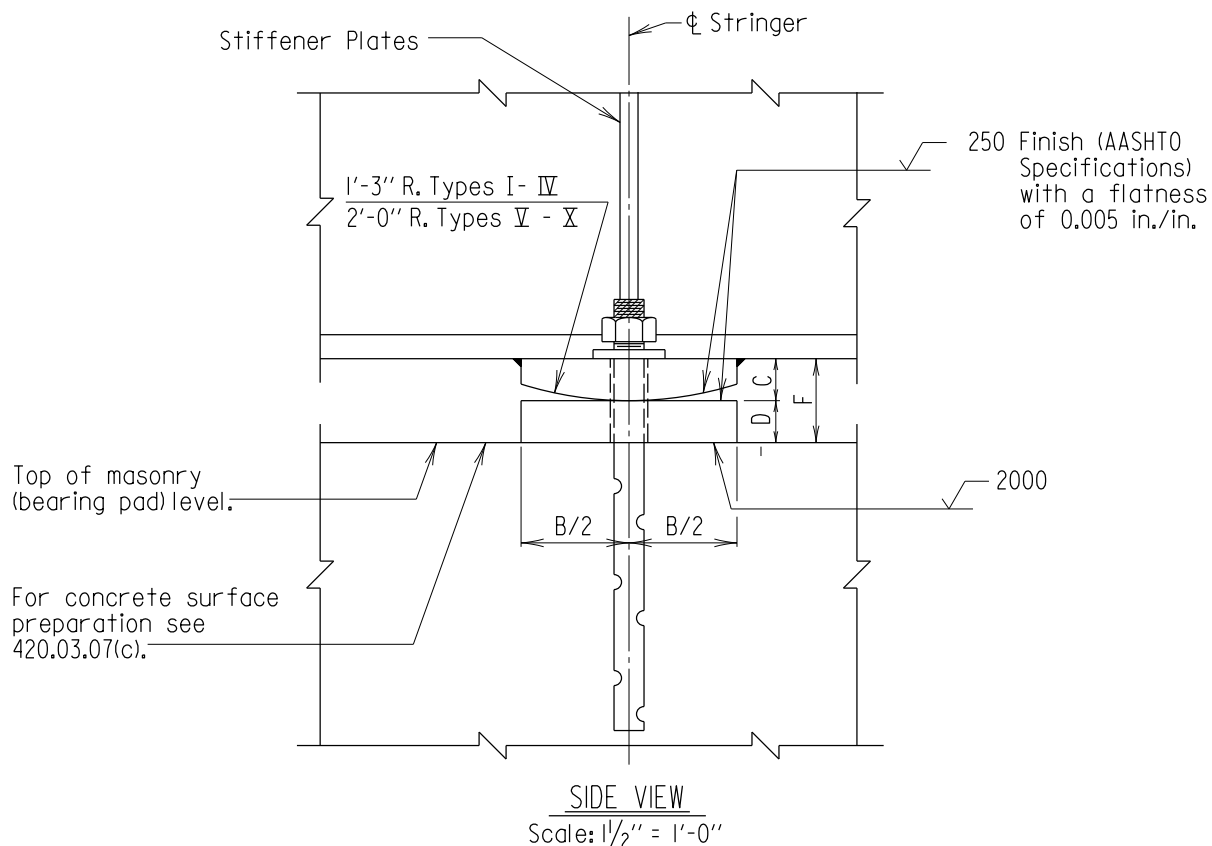
DATE: ..

STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION
OFFICE OF STRUCTURES

FIXED BEARING
MEDIUM LENGTH SPANS
(GRADE 50 STEEL)

STANDARD NO. BR-SS(9.06)-99-336

SHEET 2 OF 3



DATA SCHEDULE											
Type	Sole Plate			Masonry R			Hole Loc.	Hgt.	Max Bottom Fl. Width	Strength Limit State Loads	Service Limit State Loads
	A	B	C	A	B	D	E	F			
MF50 - I	20	9	1¾	20	9	1¾	8	3½	12	300k	185k
MF50 - II	22	11	1⅞	22	11	1⅞	9	3¾	14	400k	250k
MF50 - III	24	12	2	24	12	2	10	4	16	500k	310k
MF50 - IV	26	13	2¼	26	13	2¼	11	4½	18	600k	375k
MF50 - V	30	15	2½	30	15	2½	13	5	22	700k	440k
MF50 - VI	32	16	2¾	32	16	2¾	14	5½	24	800k	505k
MF50 - VII	34	18	2⅞	34	18	2⅞	15	5¾	26	900k	570k
MF50 - VIII	36	20	3	36	20	3	16	6	28	1000k	635k
MF50 - IX	38	22	3	38	22	3	17	6	30	1100k	700k
MF50 - X	40	24	3¼	40	24	3¼	18	6½	32	1200k	760k

Note: All dimensions are in inches.

Note:

1. Sole and masonry plates to be ASTM A 709 Grade 50 steel painted to match finished bridge color.
2. Fill slots and holes around anchor bolts with nonhardening caulking compound or elastic joint sealer.
3. 1000 RMS (Finish all over) except where otherwise noted.
4. Compressive strength of concrete bearing area shall be 3.5 ksi or greater.
5. Top of sole plate must be beveled to fit grade of bottom flange.
6. Unless otherwise noted, bearings shall be placed normal to ϕ of stringer.
7. Plates are to be shipped as units.

8. If more than one size bearing is called for, Contractor may furnish all bearings of the larger size provided the bearing pads are altered to accommodate same. No increase in any prices bid will be allowed if this option is selected.
9. All anchor bolts and washers shall be unpainted ASTM F 1554 Grade 36 galvanized steel. All nuts shall be unpainted ASTM A 563 galvanized steel.
10. The maximum design rotation due to strength load combinations $(\theta_u) = 0.75''$.

STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION
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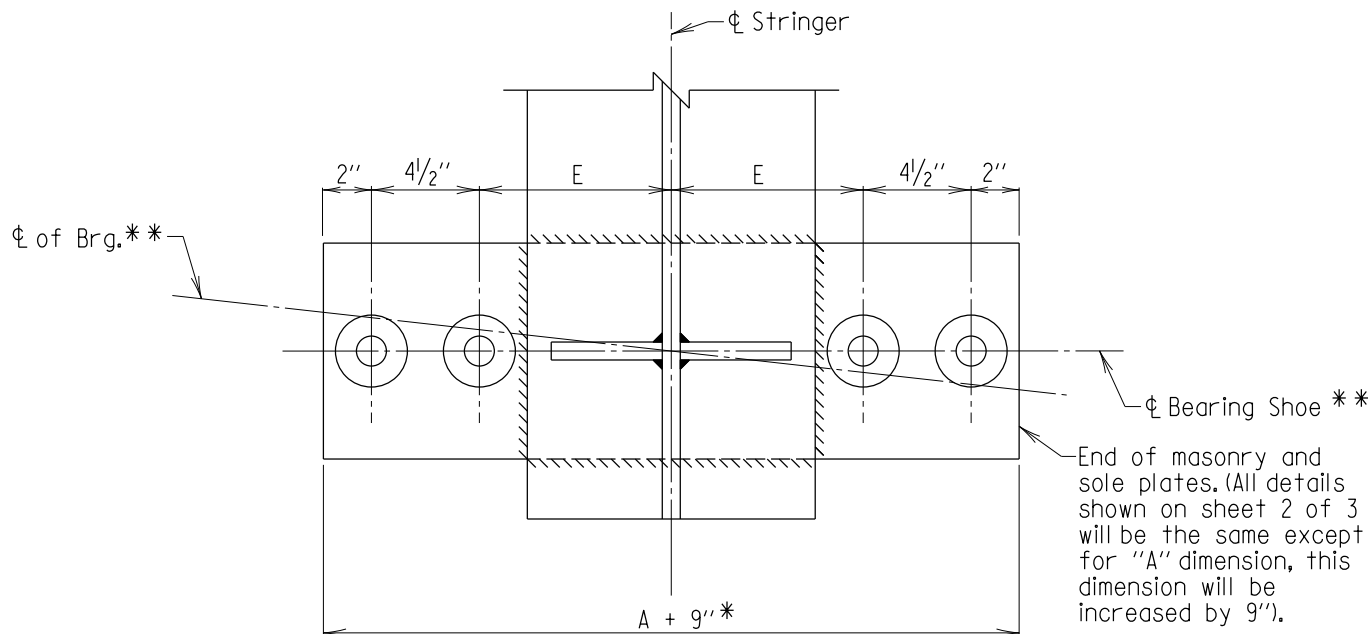
FIXED BEARING
MEDIUM LENGTH SPANS
(GRADE 50 STEEL)

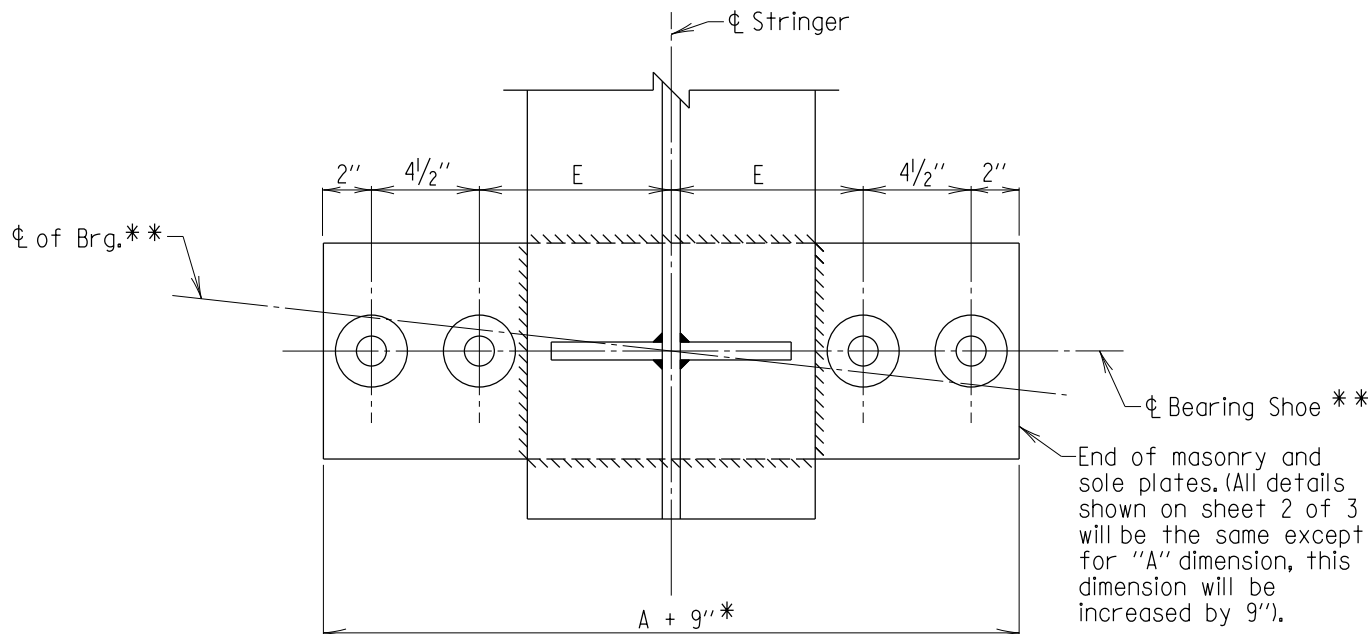


SHEET 2 OF 3

3-13-01
10-9-07
1-21-09
4-21-09

7-19-11





Note:
 1. Nut not shown.
 2. Pad and support not shown.

PLAN
 FOR ALL GIRDERS WITH SPAN LENGTHS 150' OR GREATER
 Scale: $1\frac{1}{2}'' = 1'-0''$

Note:
 Bearings for girders 150' or greater shall be extended to accommodate 2 additional bolts. Size and details of all 4 anchor bolts to be the same as that required for 2 bolt bearings.

* Edges may be left as cut or cast.

** Where bridge is not skewed, Φ Brg. and Φ shoe are coincident.

APPROVAL	
<i>E. S. Fisher</i> DIRECTOR OFFICE OF STRUCTURES	
DATE: 11/19/99	
REVISIONS	
SHA	FHWA
10-9-07	.
.	.
FHWA APPROVAL	.
DATE: ,	.

STATE OF MARYLAND
 DEPARTMENT OF TRANSPORTATION
 STATE HIGHWAY ADMINISTRATION
 OFFICE OF STRUCTURES
 FIXED BEARING
 MEDIUM LENGTH SPANS
 (GRADE 50 STEEL)



STANDARD NO. BR-SS(9.06)-99-336(L)

SHEET 3 OF 3

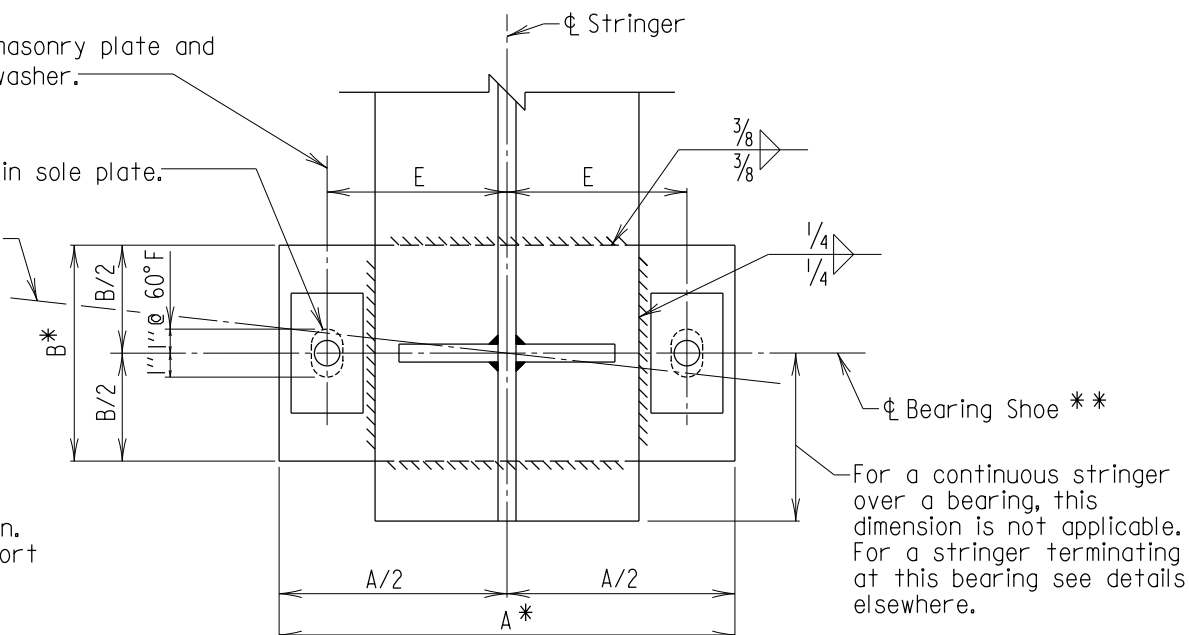
SUPER - BEARINGS

$1\frac{5}{16}$ " ϕ hole in masonry plate and
 $1\frac{1}{16}$ " ϕ hole in washer.

$1\frac{5}{16}$ " x 2" slot in sole plate.

ϕ of Brg. **

Note:
 1. Nut not shown.
 2. Pad and support
 not shown.



PLAN

Scale: $1\frac{1}{2}$ " = 1'-0"

ϕ 1" ϕ anchor bolts with hex. nuts
 and 3" x 5" x $3/8$ " washers.

Sole Plate

Masonry Plate

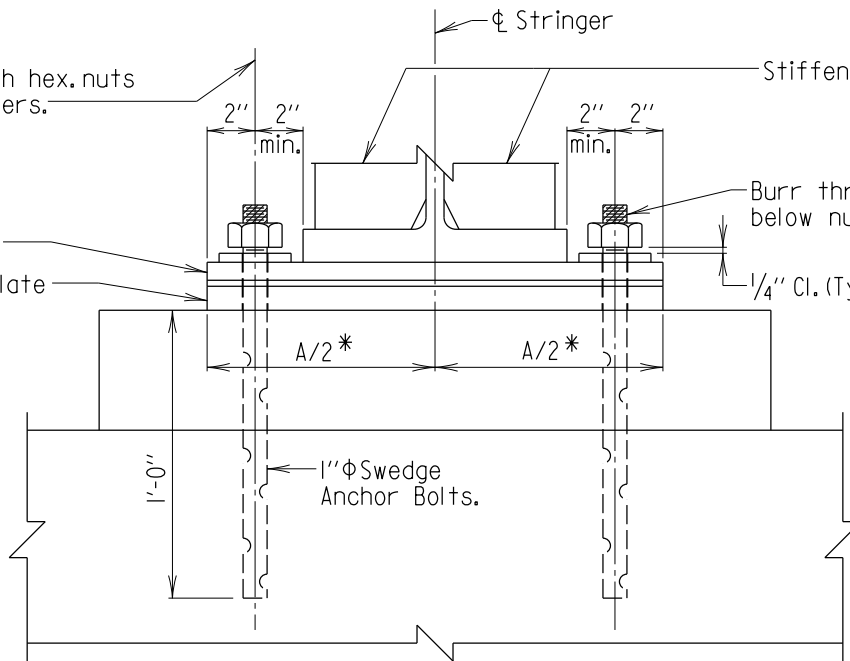
ϕ Stringer

Stiffener Plates

Burr threads above and
 below nut. (Typical)

$1/4$ " Cl. (Typ.)

1" ϕ Swedge
 Anchor Bolts.



ELEVATION

Scale: $1\frac{1}{2}$ " = 1'-0"

NOTE TO DESIGNER:

Grade 50 bearings are to be used
 in new bridge projects.

* Edges may be left as cut or cast.

** Where bridge is not skewed, ϕ Brg. and
 ϕ shoe are coincident.

APPROVAL	
<i>EsFudm</i>	DIRECTOR
OFFICE OF STRUCTURES	
DATE: 11/19/99	
REVISIONS	
SHA	FHWA
7-26-06	.
8-19-09	.
FHWA APPROVAL	.
DATE:	.

STATE OF MARYLAND
 DEPARTMENT OF TRANSPORTATION
 STATE HIGHWAY ADMINISTRATION
 OFFICE OF STRUCTURES

EXPANSION BEARING
 SHORT LENGTH SPANS
 (GRADE 50 STEEL)

STANDARD NO. BR-SS(9.07)-99-337

SHEET 1 OF 2

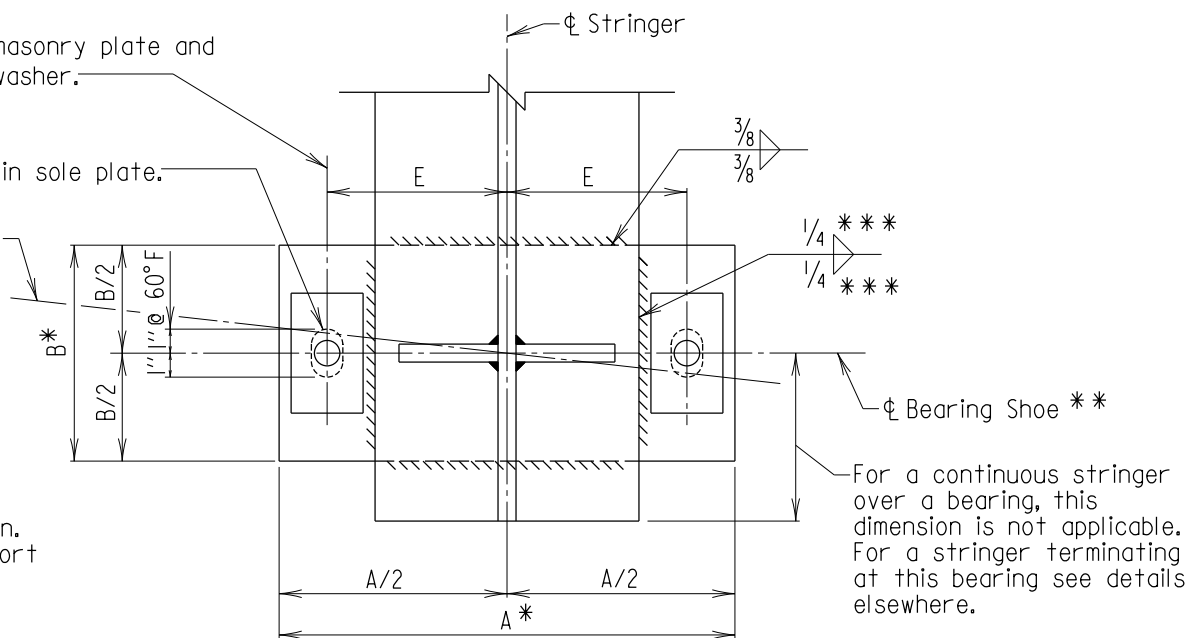
SUPER - BEARINGS

$1\frac{5}{16}$ " ϕ hole in masonry plate and
 $1\frac{1}{16}$ " ϕ hole in washer.

$1\frac{5}{16}$ " x 2" slot in sole plate.

ϕ of Brg. **

Note:
 1. Nut not shown.
 2. Pad and support
 not shown.

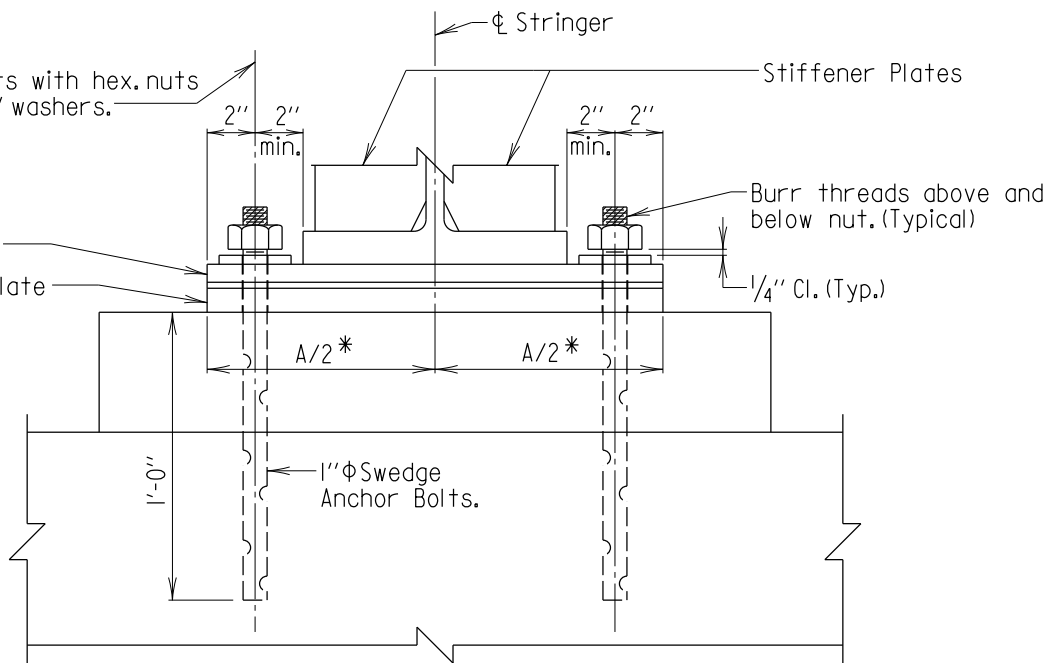


PLAN

Scale: $1\frac{1}{2}$ " = 1'-0"

*** ϕ 1" ϕ anchor bolts with hex. nuts
 and 3" x 5" x $\frac{3}{8}$ " washers.

Sole Plate
 Masonry Plate



ELEVATION

Scale: $1\frac{1}{2}$ " = 1'-0"

* Edges may be left as cut or cast.

** Where bridge is not skewed, ϕ Brg.
 and ϕ shoe are coincident.

*** Minimums shown. Engineer Shall Design.

APPROVAL	
<i>Les Fudman</i>	DIRECTOR
OFFICE OF STRUCTURES	
DATE: 11/19/99	
REVISIONS	
SHA	FHWA
7-26-06	.
10-9-07	.
8-19-09	.
FHWA APPROVAL	.
DATE: ..	.

STATE OF MARYLAND
 DEPARTMENT OF TRANSPORTATION
 STATE HIGHWAY ADMINISTRATION
 OFFICE OF STRUCTURES

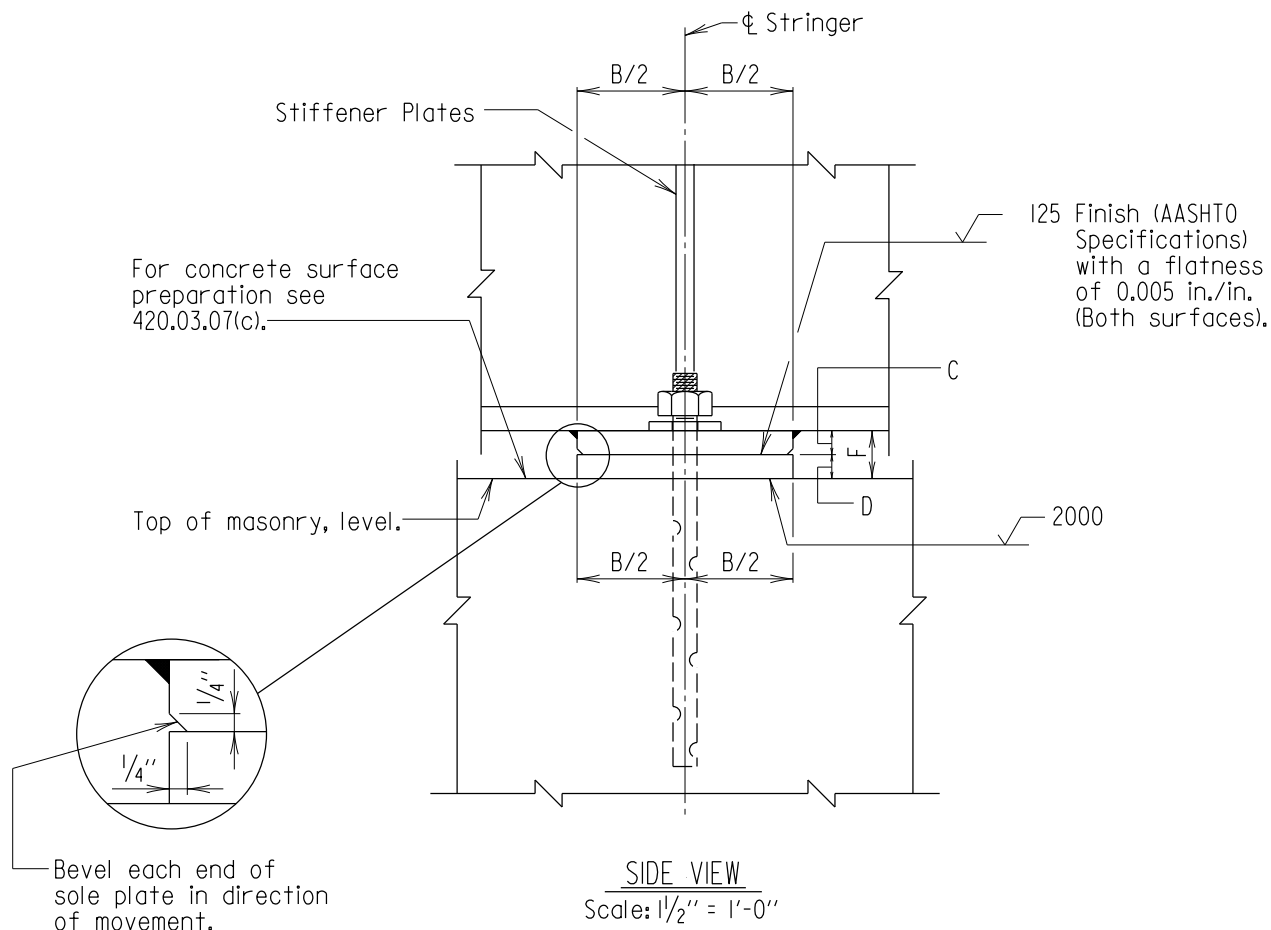
EXPANSION BEARING
 SHORT LENGTH SPANS
 (GRADE 50 STEEL)

STANDARD NO. BR-SS(9.07)-99-337(L)

SHEET 1 OF 2



SUPER - BEARINGS



DATA SCHEDULE										
Type	Sole Plate			Masonry R			Hole Loc. Hgt.		Loads (Kips)	
	A	B	C	A	B	D	E	F	Vert.	Dead
SE50 - I	17	9	1	17	9	1	6 1/2	2	70	16
SE50 - II	19	9	1	19	9	1	7 1/2	2	85	23
SE50 - III	21	9	1	21	9	1	8 1/2	2	100	34

Note: All dimensions are in inches.

Note:

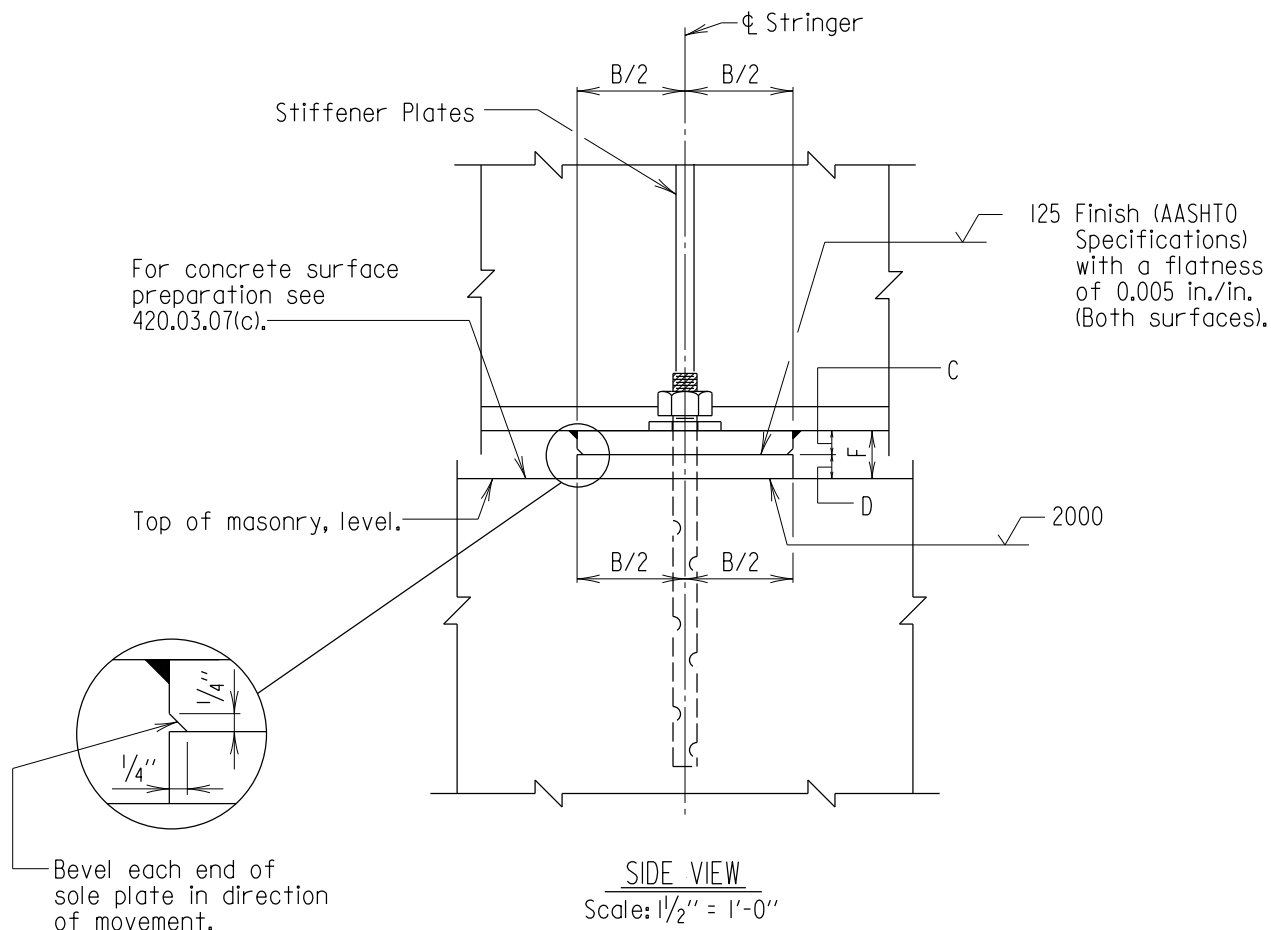
- Sole and masonry plates to be ASTM A 709 Grade 50 steel painted to match finished bridge color.
- Fill slots and holes around anchor bolts with nonhardening caulking compound or elastic joint sealer.
- 1000 RMS (Finish all over) except where otherwise noted.
- Design Bearing Load 0.7 KSI.
- Top of sole plate must be beveled to fit grade of bottom flange. If sole plate must be beveled, dimension 'C' shall be measured at φ of bearing.
- Unless otherwise noted, bearings shall be placed normal to φ of stringer.
- Plates are to be shipped as units.
- If more than one size bearing is called for, Contractor may furnish all bearings of the larger size provided the bearing pads are altered to accommodate same. No increase in any prices bid will be allowed if this option is selected.
- This bearing for use on simple span steel stringer bridges less than 50'-0" long and/or comparable continuous span lengths.
- All anchor bolts and washers shall be unpainted ASTM A 709 Grade 36 galvanized steel. All nuts shall be unpainted ASTM A 307 galvanized steel.

APPROVAL	
<i>Eschman</i> DIRECTOR	OFFICE OF STRUCTURES
DATE: 11/19/99	
REVISIONS	
SHA	FHWA
-	-
-	-
-	-
FHWA APPROVAL	-
DATE: ..	-

STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION
OFFICE OF STRUCTURES
EXPANSION BEARING
SHORT LENGTH SPANS
(GRADE 50 STEEL)

STANDARD NO. BR-SS(9.07)-99-337

SHEET 2 OF 2



DATA SCHEDULE									
Type	Sole Plate			Masonry Φ			Hole Loc. Hgt.		Service Loads (Kips)
	A	B	C	A	B	D	E	F	
SE50 - I	17	9	1	17	9	1	6 1/2	2	70
SE50 - II	19	9	1 1/4	19	9	1 1/4	7 1/2	2 1/2	85
SE50 - III	21	9	1 1/4	21	9	1 1/4	8 1/2	2 1/2	100

Note: All dimensions are in inches.

Note:

- Sole and masonry plates to be ASTM A 709 Grade 50 steel painted to match finished bridge color.
- Fill slots and holes around anchor bolts with nonhardening caulking compound or elastic joint sealer.
- 1000 RMS (Finish all over) except where otherwise noted.
- Top of sole plate must be beveled to fit grade of bottom flange. If sole plate must be beveled, dimension 'C' shall be measured at Φ of bearing.
- Unless otherwise noted, bearings shall be placed normal to Φ of stringer.
- Plates are to be shipped as units.
- If more than one size bearing is called for, Contractor may furnish all bearings of the larger size provided the bearing pads are altered to accommodate same. No increase in any prices bid will be allowed if this option is selected.
- This bearing for use on simple span steel stringer bridges less than 50'-0" long and/or comparable continuous span lengths.
- All anchor bolts and washers shall be unpainted ASTM A 709 Grade 36 galvanized steel. All nuts shall be unpainted ASTM A 307 galvanized steel.

APPROVAL	
<i>EsFudon</i> DIRECTOR	OFFICE OF STRUCTURES
DATE: 11/19/99	
REVISIONS	
SHA	FHWA
10-9-07	
FHWA APPROVAL	
DATE: ..	

STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION
OFFICE OF STRUCTURES

EXPANSION BEARING
SHORT LENGTH SPANS
(GRADE 50 STEEL)

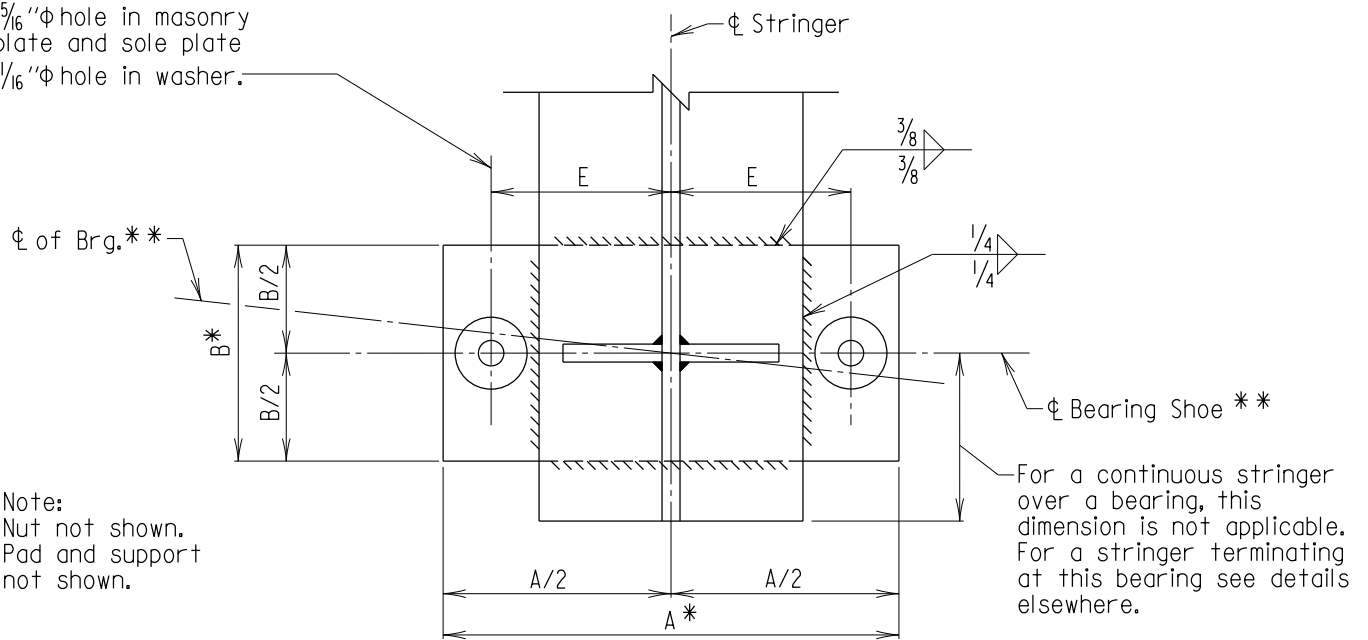
STANDARD NO. BR-SS(9.07)-99-337(L)

SHEET 2 OF 2



SUPER - BEARINGS

1⁵/₁₆" ϕ hole in masonry
plate and sole plate
1¹/₁₆" ϕ hole in washer.



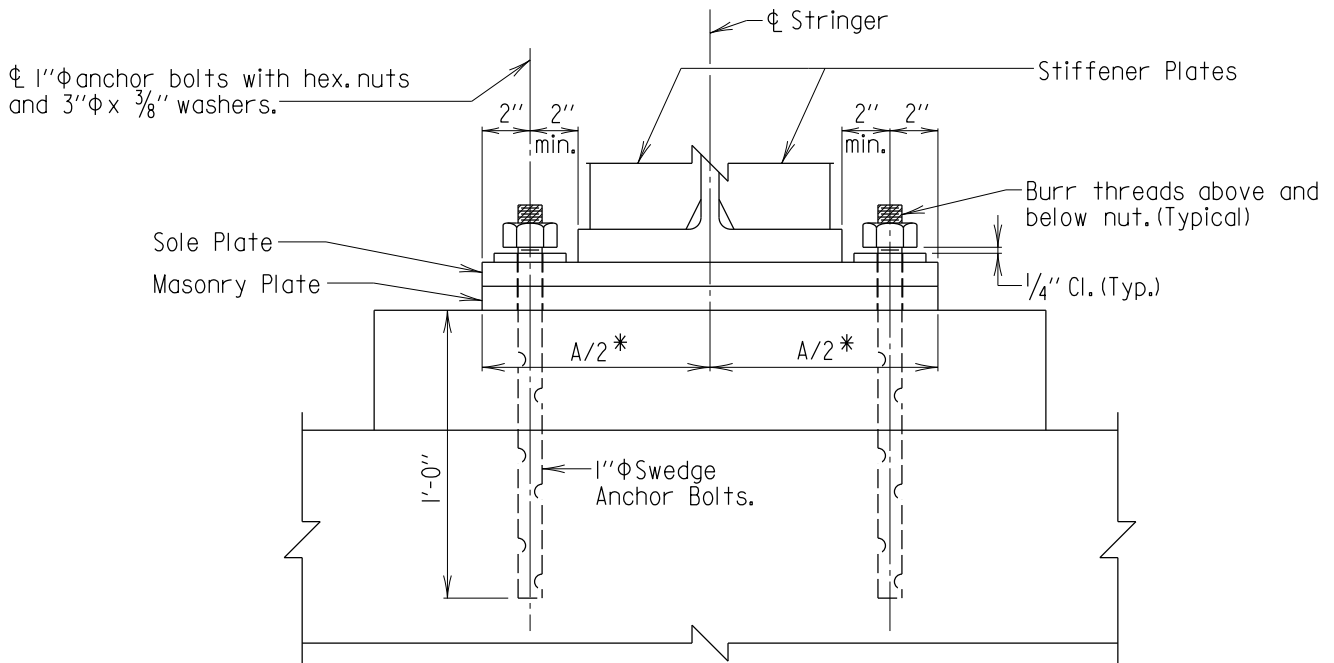
Note:

1. Nut not shown.
2. Pad and support not shown.

—For a continuous stringer over a bearing, this dimension is not applicable. For a stringer terminating at this bearing see details elsewhere.

PLAN

Scale: $1\frac{1}{2}'' = 1'-0''$

ELEVATION

Scale: $1\frac{1}{2}'' = 1'-0''$

NOTE TO DESIGNER:

Grade 50 bearings are to be used in new bridge projects.

* Edges may be left as cut or cast.

* * Where bridge is not skewed, ϕ Brg. and ϕ shoe are coincident.

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8-19-09	.
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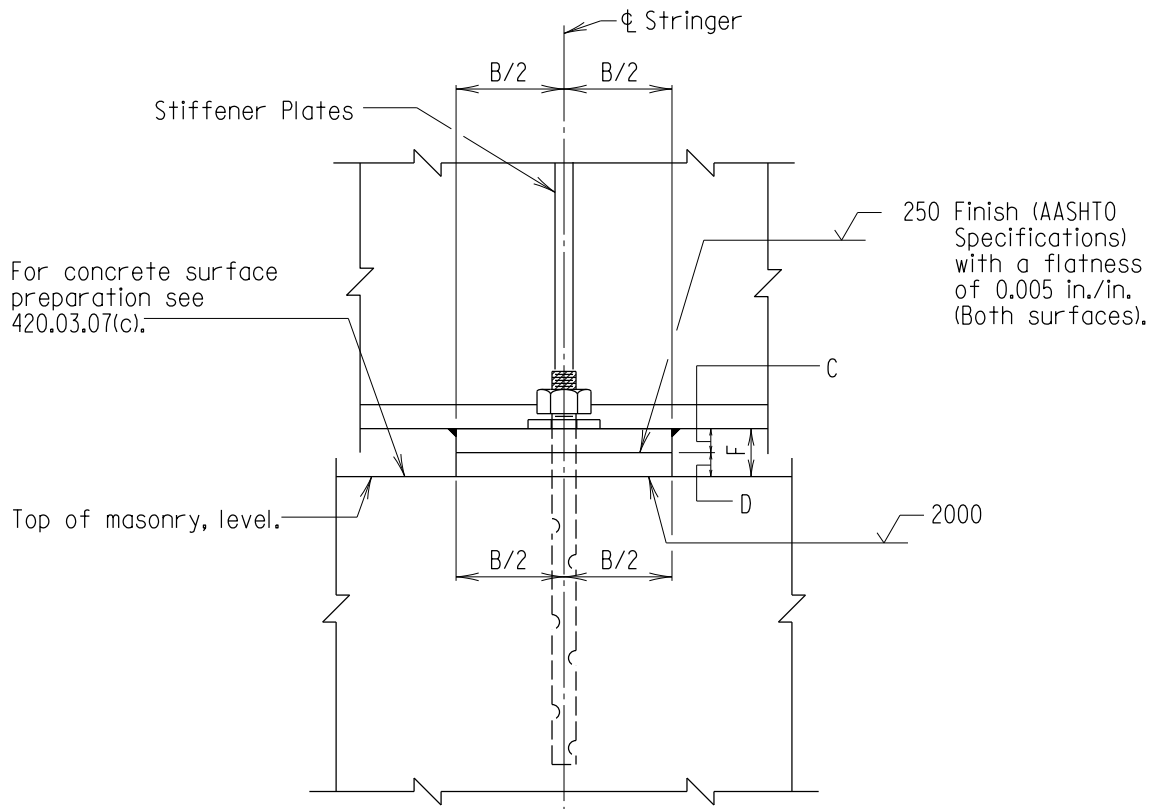
FIXED BEARING
SHORT LENGTH SPANS
(GRADE 50 STEEL)

STANDARD NO. BR-SS(9.08)-99-338

SHEET 1 OF 2

SUPER - BEARINGS

SUPER - BEARINGS



SIDE VIEW
Scale: 1 1/2" = 1'-0"

DATA SCHEDULE										
Type	Sole Plate			Masonry R			Hole Loc. Hgt.		Loads (Kips)	
	A	B	C	A	B	D	E	F	Vert.	Dead
SF50 - I	17	9	1	17	9	1	6 1/2	2	70	16
SF50 - II	19	9	1	19	9	1	7 1/2	2	85	23
SF50 - III	21	9	1	21	9	1	8 1/2	2	100	34

Note: All dimensions are in inches.

Note:

- Sole and masonry plates to be ASTM A 709 Grade 50 steel painted to match finished bridge color.
- Fill slots and holes around anchor bolts with nonhardening caulking compound or elastic joint sealer.
- 1000 RMS (Finish all over) except where otherwise noted.
- Design Bearing Load 0.7 KSI.
- Top of sole plate must be beveled to fit grade of bottom flange. If sole plate must be beveled, dimension 'C' shall be measured at φ of bearing.
- Unless otherwise noted, bearings shall be placed normal to φ of stringer.
- Plates are to be shipped as units.
- If more than one size bearing is called for, Contractor may furnish all bearings of the larger size provided the bearing pads are altered to accommodate same. No increase in any prices bid will be allowed if this option is selected.
- This bearing for use on simple span steel stringer bridges less than 50'-0" long and/or comparable continuous span lengths.
- All anchor bolts and washers shall be unpainted ASTM A 709 Grade 36 galvanized steel. All nuts shall be unpainted ASTM A 307 galvanized steel.

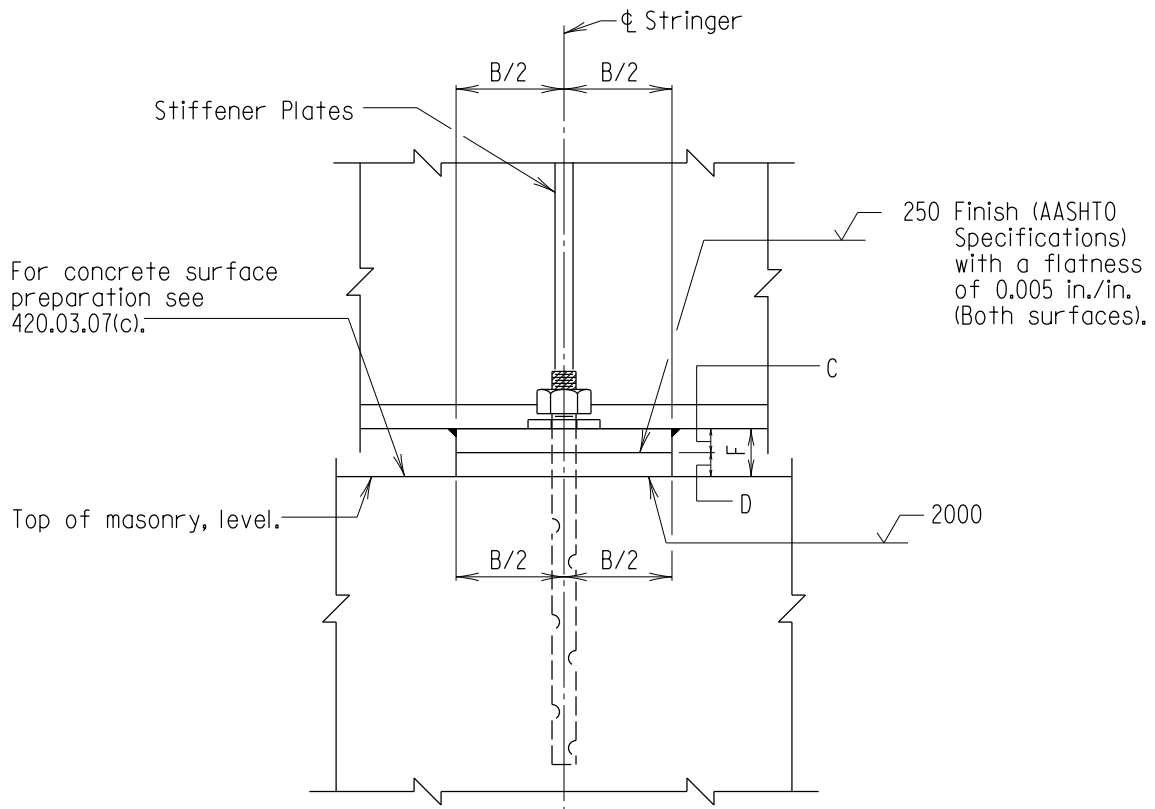
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STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION
OFFICE OF STRUCTURES

FIXED BEARING
SHORT LENGTH SPANS
(GRADE 50 STEEL)

STANDARD NO. BR-SS(9.08-99-338

SHEET 2 OF 2



SIDE VIEW
Scale: 1 1/2" = 1'-0"

DATA SCHEDULE									
Type	Sole Plate			Masonry R			Hole Loc.	Hgt.	Service Loads (Kips)
	A	B	C	A	B	D	E	F	Vert.
SF50 - I	17	9	1	17	9	1	6 1/2	2	70
SF50 - II	19	9	1	19	9	1	7 1/2	2	85
SF50 - III	21	9	1	21	9	1	8 1/2	2	100

Note: All dimensions are in inches.

Note:

- Sole and masonry plates to be ASTM A 709 Grade 50 steel painted to match finished bridge color.
- Fill slots and holes around anchor bolts with nonhardening caulking compound or elastic joint sealer.
- 1000 RMS (Finish all over) except where otherwise noted.
- Top of sole plate must be beveled to fit grade of bottom flange. If sole plate must be beveled, dimension 'C' shall be measured at ϕ of bearing.
- Unless otherwise noted, bearings shall be placed normal to ϕ of stringer.
- Plates are to be shipped as units.
- If more than one size bearing is called for, Contractor may furnish all bearings of the larger size provided the bearing pads are altered to accommodate same. No increase in any prices bid will be allowed if this option is selected.
- This bearing for use on simple span steel stringer bridges less than 50'-0" long and/or comparable continuous span lengths.
- All anchor bolts and washers shall be unpainted ASTM A 709 Grade 36 galvanized steel. All nuts shall be unpainted ASTM A 307 galvanized steel.

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STATE OF MARYLAND
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FIXED BEARING
SHORT LENGTH SPANS
(GRADE 50 STEEL)

STANDARD NO. BR-SS(9.08)-99-338(L)

SHEET 2 OF 2



SUPER - BEARINGS